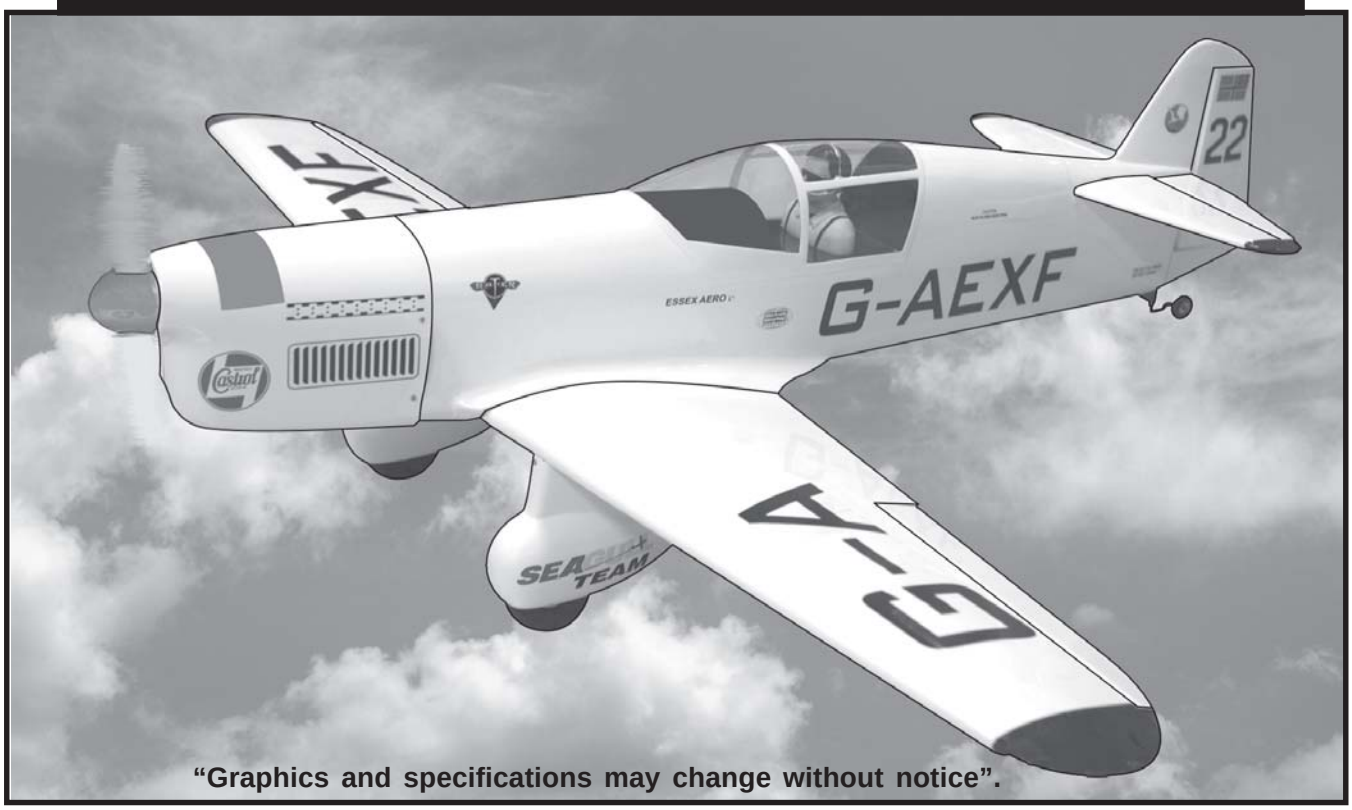
PERCIVAL
MEW GULL

MS: SEA 98

ASSEMBLY MANUAL



"Graphics and specifications may change without notice".

Specifications

Wing span----------74 in---------- 188cm.
Wing area----------797.2 sq.in---------- 51.4 sq.dm.
Approximate flying weight----------10.1-11lbs----------4.6 - 5kg.
Length----------60.7in----------154.3cm.
Recommended engine size----------1.20 cu.in---------- 2-stroke.
.1.25 - 1.50 ---------- 4-stroke.
ELECTRIC CONVERSION : OPTIONAL.
Radio System required 6 channels with 6 digital servos.
Flying skill level Intermediate/advanced.

Kit features.

- Ready-made—minimal assembly & finishing required.
- Ready-covered covering.
- Photo-illustrated step-by-step Assembly Manual.

Made in Vietnam

INTRODUCTION.

Thank you for choosing the **PERCIVAL MEW GULL** ARTF by SEAGULL MODELS. The **PERCIVAL MEW GULL** was designed with the intermediate/advanced sport scale in mind. It is a semi scale airplane which is easy to fly and quick to assemble. The airframe is conventionally built using balsa, plywood to make it stronger than the average ARTF , yet the design allows the aeroplane to be kept light. You will find that most of the work has been done for you already. The motor mount has been fitted and the hinges are pre-installed . Flying the **PERCIVAL MEW GULL** is simply a joy.

This instruction manual is designed to help you build a great flying aeroplane. Please read this manual thoroughly before starting assembly of your **PERCIVAL MEW GULL**. Use the parts listing below to identify all parts.

WARNING.

Please be aware that this aeroplane is not a toy and if assembled or used incorrectly it is capable of causing injury to people or property. WHEN YOU FLY THIS AEROPLANE YOU ASSUME ALL RISK & RESPONSIBILITY.

If you are inexperienced with basic R/C flight we strongly recommend you contact your R/C supplier and join your local R/C Model Flying Club. R/C Model Flying Clubs offer a variety of training procedures designed to help the new pilot on his way to successful R/C flight. They will also be able to advise on any insurance and safety regulations that may apply.

ADDITIONAL ITEMS REQUIRED.

- ☐ .1.20 cu.in 2-stroke
.1.25 - 1.50 cu.in 4-stroke engine
- ☐ Radio System required 6 channels with 6 digital servos
- ☐ Propeller to suit engine
- ☐ Protective foam rubber for radio system
- ☐ Silicone fuel line

TOOLS & SUPPLIES NEEDED.

- ☐ Thick cyanoacrylate glue
- ☐ 30 minute epoxy
- ☐ 5 minute epoxy
- ☐ Hand or electric drill
- ☐ Assorted drill bits
- ☐ Modelling knife
- ☐ Straight edge ruler
- ☐ 2mm ball driver
- ☐ Phillips head screwdriver
- ☐ 220 grit sandpaper
- ☐ 90° square or builder's triangle
- ☐ Wire cutters
- ☐ Masking tape & T-pins
- ☐ Thread-lock
- ☐ Paper towels

PARTS LISTING.

FUSELAGE ASSEMBLY

- ☐ (1) Fuselage
- ☐ (1) Canopy

WING ASSEMBLY

- ☐ (1) Right wing half/ aileron
- ☐ (1) Left wing half with/ aileron
- ☐ (1) Aluminium dihedral brace

Tail section assembly

- ☐ (1) Horizontal stabilizer/ elevator halves.
- ☐ (1) Rudder halves.

Some more parts.

HARDWARE PACK

COWLING
Landing gear.....

NOTE: To avoid scratching your new aeroplane we suggest that you cover your workbench with an old towel. Keep a couple of jars or bowls handy to hold the small parts after you open the bags.

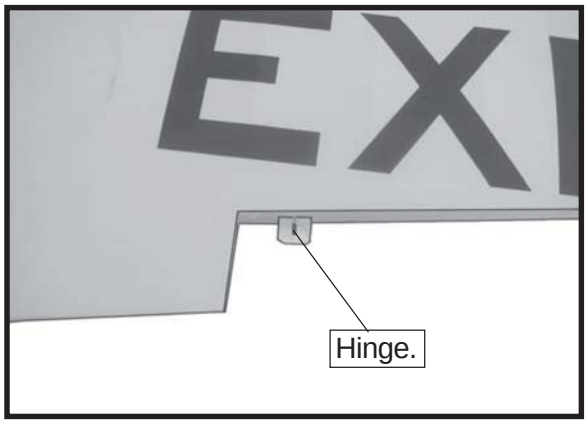
Please trial fit all parts. Make sure you have the correct parts and that they fit and are aligned properly before gluing! This will ensure proper assembly as the **PERCIVAL MEW GULL** is made from natural materials and minor adjustments may have to be made. The paint and plastic parts used in this kit are fuel proof. However, they are not tolerant of many harsh chemicals including the following: paint thinner, cyano-acrylate glue accelerator, cyanoacrylate glue de-bonder and acetone. Do not let these chemicals come in contact with the colours on the covering and the plastic parts.

HINGING THE AILERONS.

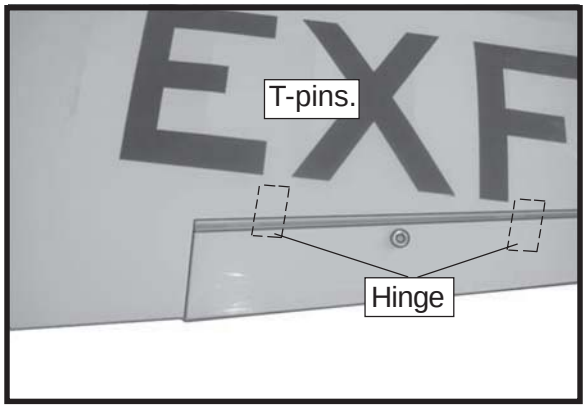
Note: *The control surfaces, including the ailerons, elevators, and rudder, are prehinged with hinges installed, but the hinges are not glued in place. It is imperative that you properly adhere the hinges in place per the steps that follow using a high-quality thin C/A glue.*

☐ 1) Carefully remove the aileron from one of the wing panels. Note the position of the hinges.

☐ 2) Remove each hinge from the wing panel and aileron and place a T-pin in the center of each hinge. Slide each hinge into the wing panel until the T-pin is snug against the wing panel. This will help ensure an equal amount of hinge is on either side of the hinge line when the aileron is mounted to the aileron.



☐ 3) Slide the wing panel on the aileron until there is only a slight gap. The hinge is now centered on the wing panel and aileron. Remove the T-pins and snug the aileron against the wing panel. A gap of 1/64" or less should be maintained between the wing panel and aileron.



☐ 4)Deflect the aileron and completely saturate each hinge with thin C/A glue. The ailerons front surface should lightly contact the wing during this procedure. Ideally, when the

hinges are glued in place, a 1/64" gap or less will be maintained throughout the lengh of the aileron to the wing panel hinge line.

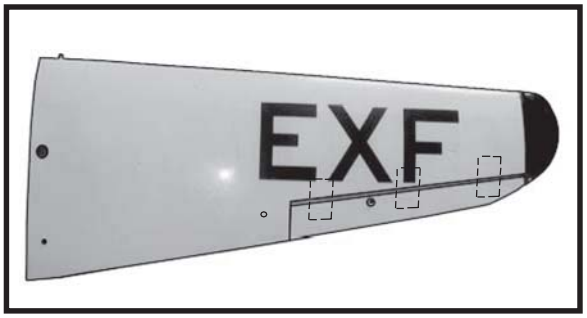
Note: *The hinge is constructed of a special material that allows the C/A to wick or penetrate and distribute throughout the hinge, securely bonding it to the wood structure of the wing panel and aileron.*

☐ 5) Turn the wing panel over and deflect the aileron in the opposite direction from the opposite side. Apply thin C/A glue to each hinge, making sure that the C/A penetrates into both the aileron and wing panel.

☐ 6) Using C/A remover/debonder and a paper towel, remove any excess C/A glue that may have accumulated on the wing or in the aileron hinge area.

☐ 7) Repeat this process with the other wing panel, securely hinging the aileron in place.

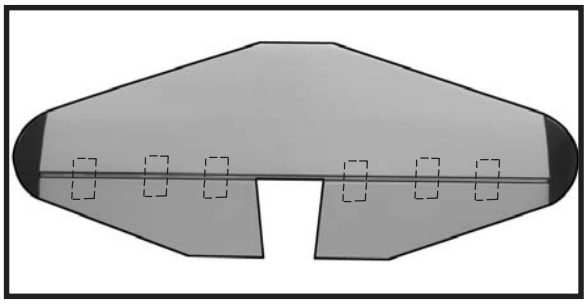
☐ 8) After both ailerons are securely hinged, firmly grasp the wing panel and aileron to make sure the hinges are securely glued and cannot be pulled out. Do this by carefully applying medium pressure, trying to separate the aileron from the wing panel. Use caution not to crush the wing structure.



Note: *Work the aileron up and down several times to "work in" the hinges and check for proper movement.*

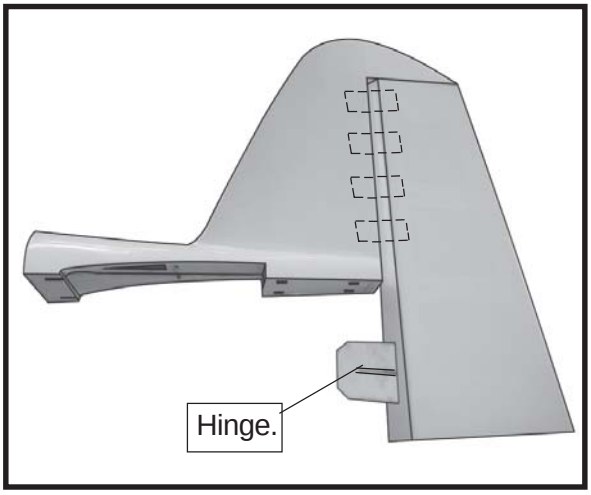
HINGING THE ELEVATOR.

Glue the elevator hinges in place using the same techniques used to hinge the ailerons.



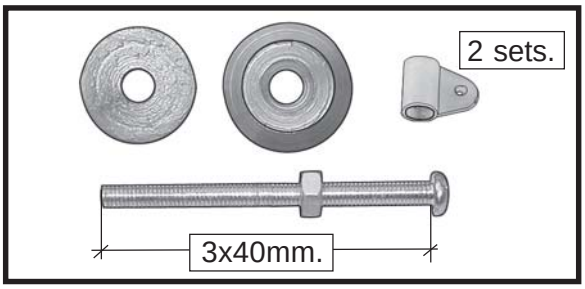
HINGING THE RUDDER.

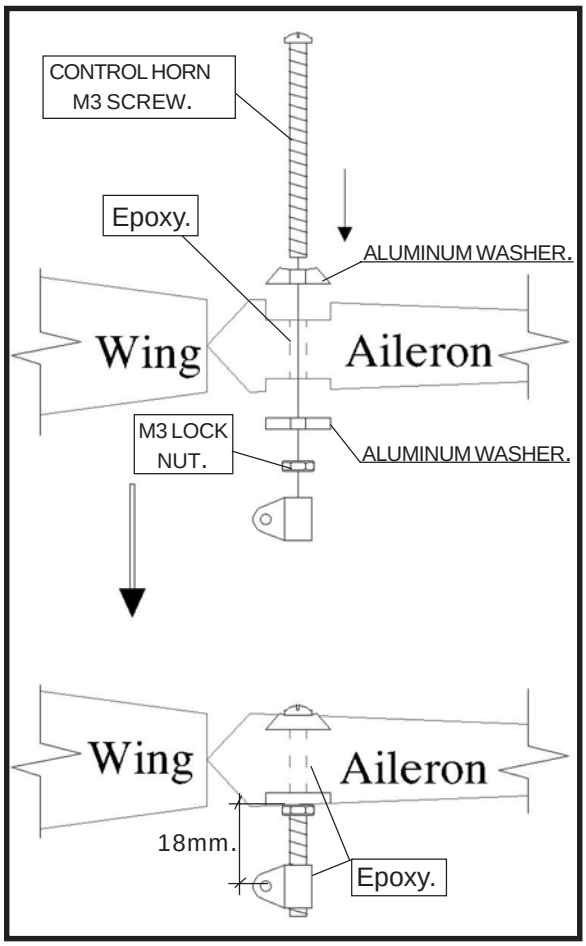
Glue the rudder hinges in place using the same techniques used to hinge the ailerons.

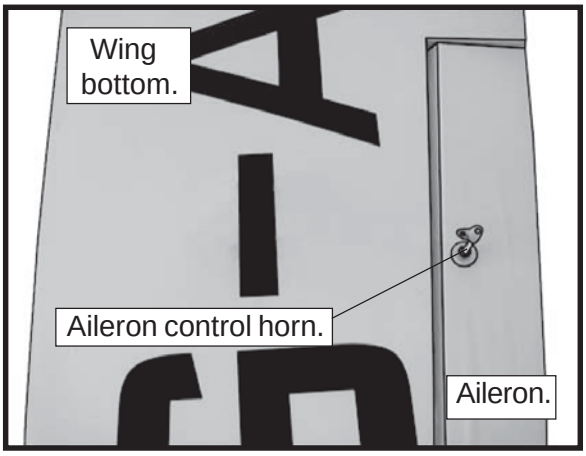


AILERON CONTROL HORN

Aileron control horn installation: See pictures below.

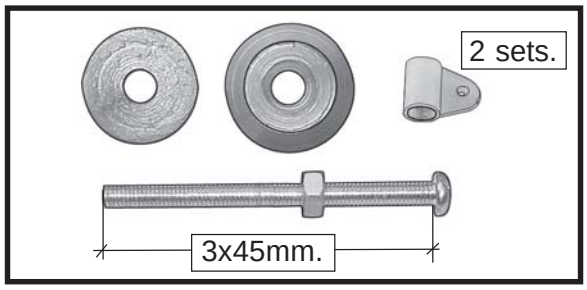


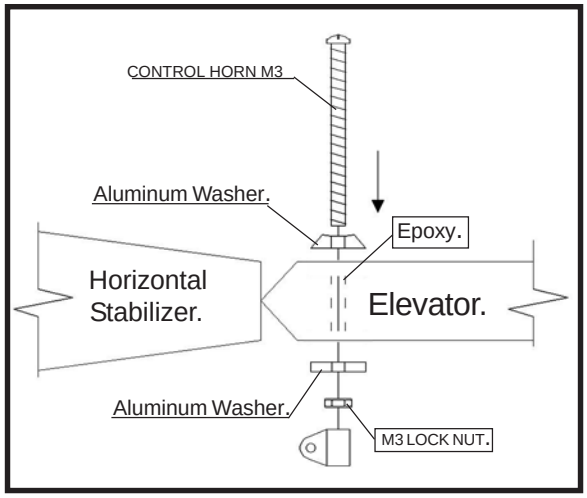


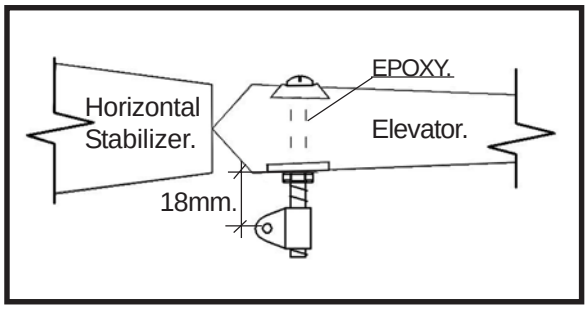


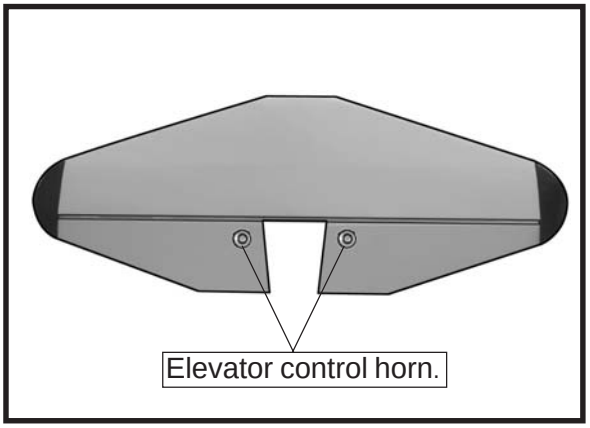
ELEVATOR CONTROL HORN.

Install the elevator control horn using the same method as with the aileron control horns.



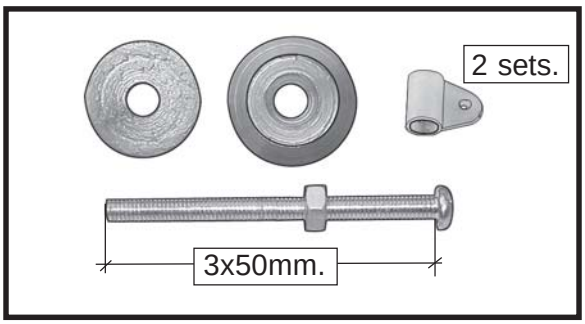


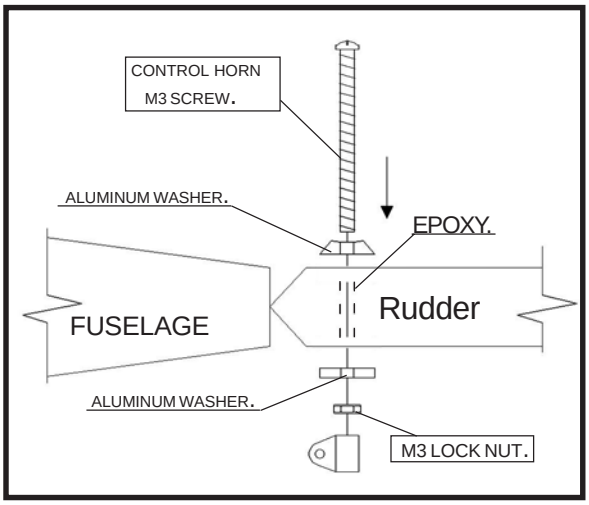


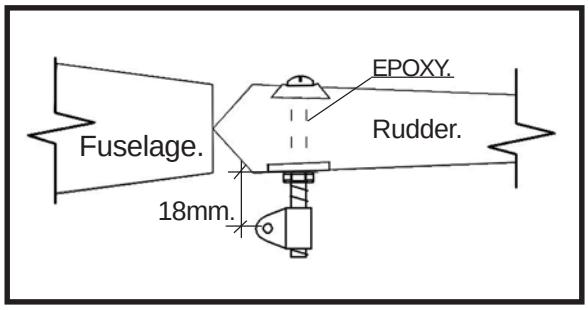


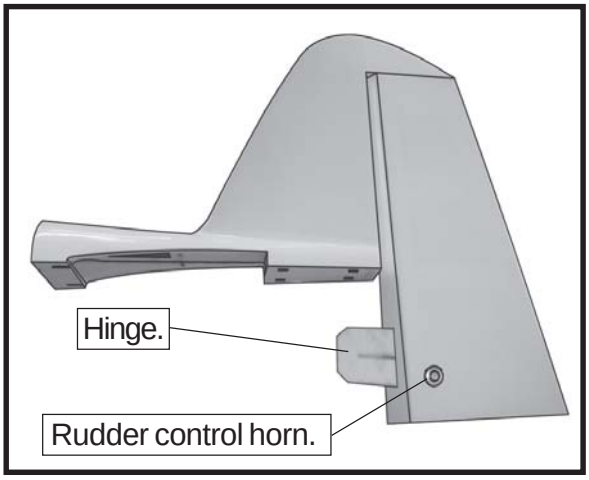
RUDDER CONTROL HORN.

Rudder control horn:
Using the same techniques used aileron control horn. See picture below.



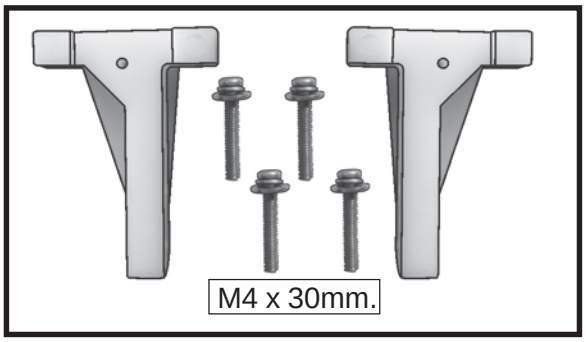




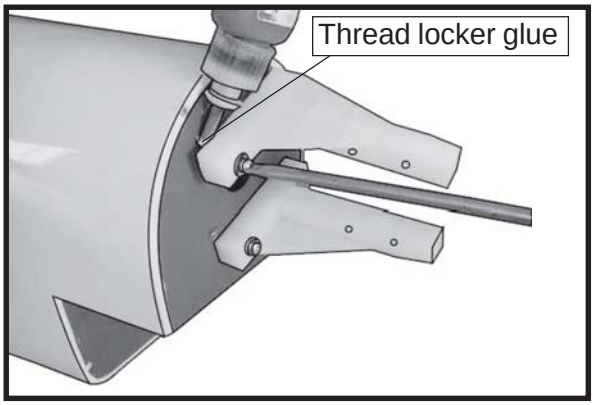


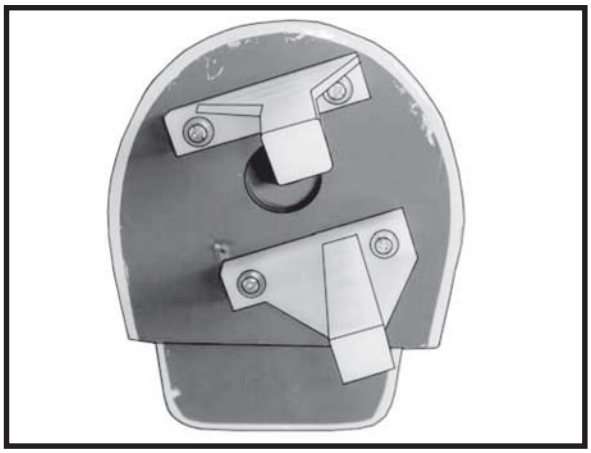
ENGINE MOUNT INSTALLATION.

See pictures below.Make yourself the template of your engine on paper.



Mark and drill 4 holes for engine mount.
Insert 4 blind nuts to firewall.



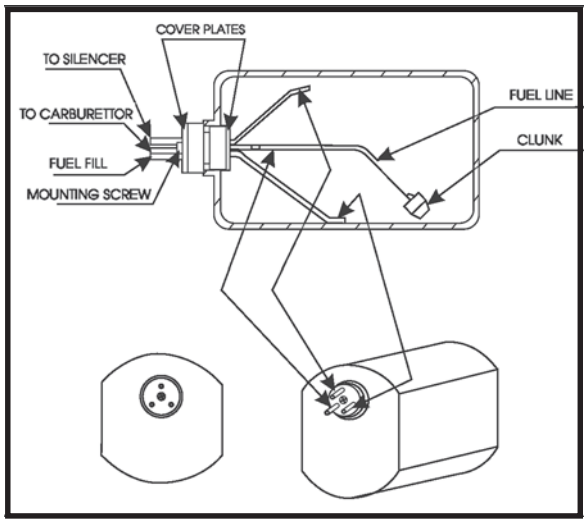


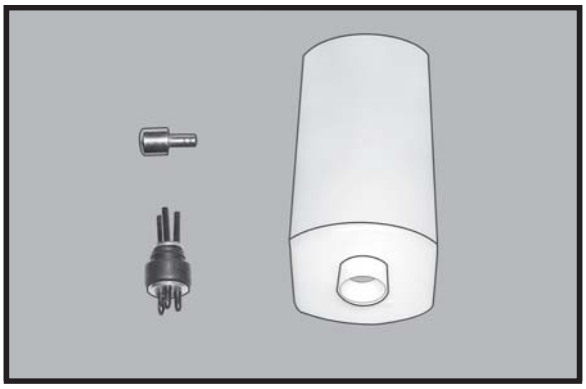
INSTALLING THE STOPPER ASSEMBLY.

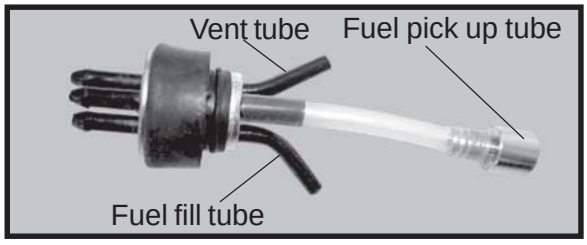
☐ 1) Using a modeling knife, carefully cut off the rear portion of one of the 3 nylon tubes leaving 1/2" protruding from the rear of the stopper. This will be the fuel pick up tube.

☐ 2) Using a modeling knife, cut one length of silicon fuel line. Connect one end of the line to the weighted fuel pick up and the other end to the nylon pick up tube.(The silicon tube is not included).

☐ 3) Carefully bend the second nylon tube up at a 45º angle. This tube is the vent tube.







Carefully use a lighter or heat gun to permenently set the angle of the vent tube.

Important: *When the stopper assembly is installed in the tank, the top of the vent tube should rest just below the top surface of the tank. It should not touch the top of the tank.*

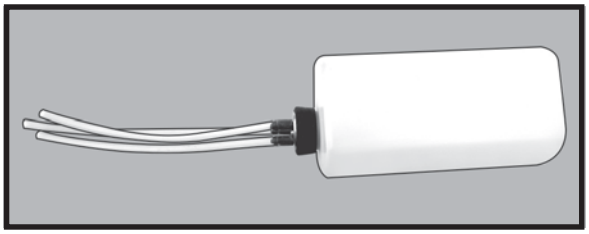
☐ 4) Test fit the stopper assembly into the tank. It may be necessary to remove some of the flashing around the tank opening using a modeling knife. If flashing is present, make sure none falls into the tank.

☐ 5) With the stopper assembly in place, the weighted pick-up should rest away from the rear of the tank and move freely inside the tank. The top of the vent tube should rest just below the top of the tank. It should not touch the top of the tank.

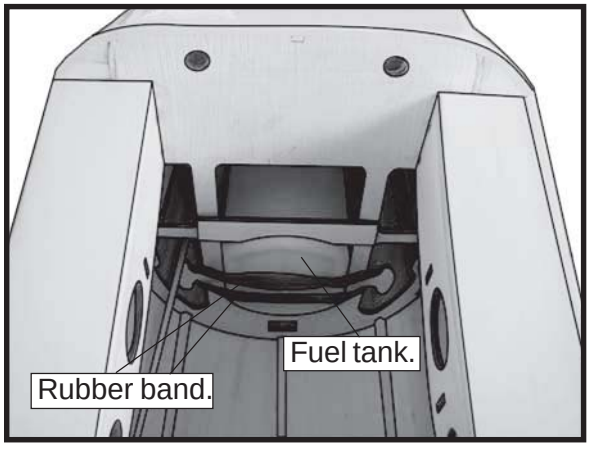
☐ 6) When satisfied with the alignment of the stopper assembly tighten the 3 x 20mm machine screw until the rubber stopper expands and seals the tank opening. Do not overtighten the assembly as this could cause the tank to split.

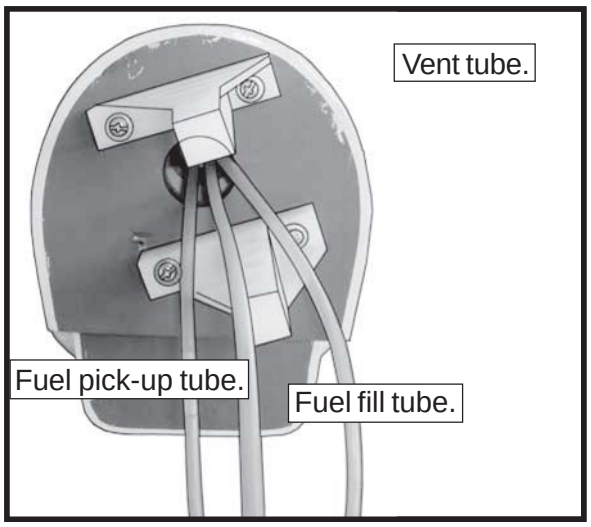
FUEL TANK INSTALLATION.

1_Glow Engine.



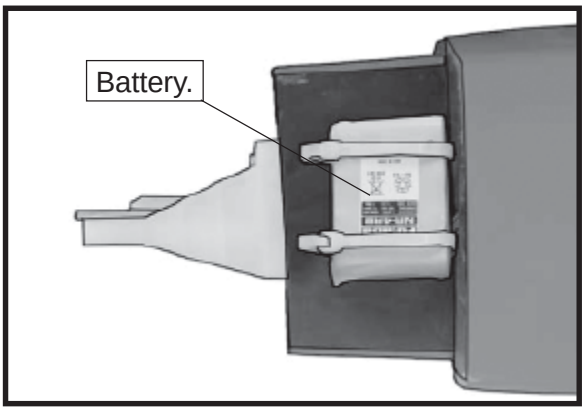
⚠ *You should mark which tube is the vent and which is the fuel pickup when you attach fuel tubing to the tubes in the stopper. Once the tank is installed inside the fuselage, it may be difficult to determine which is which.*



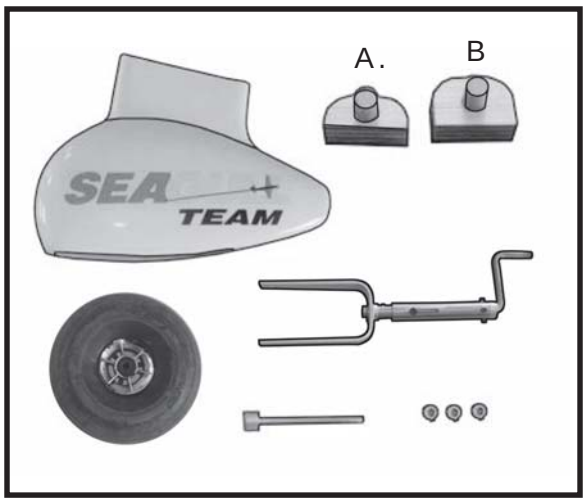


⚠ *Blow through one of the lines to ensure the fuel lines have not become kinked inside the fuel tank compartment. Air should flow through easily.*

INSTALLING THE BATTERY.

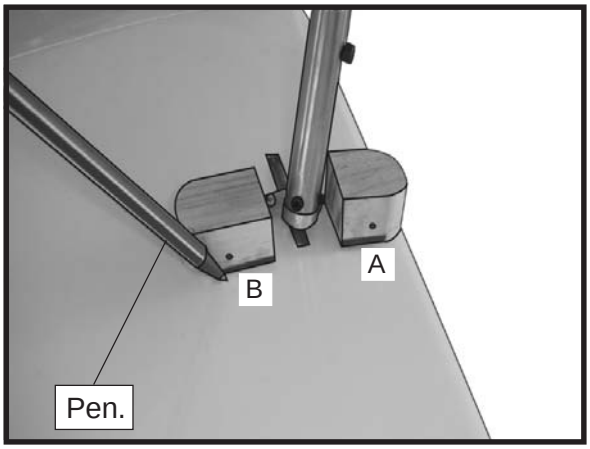


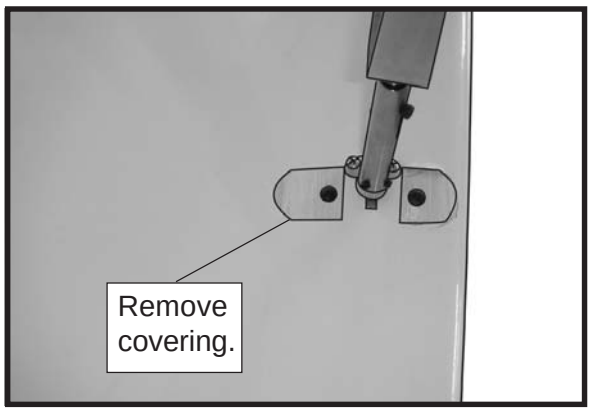
INSTALLING THE MAIN GEAR WIRES

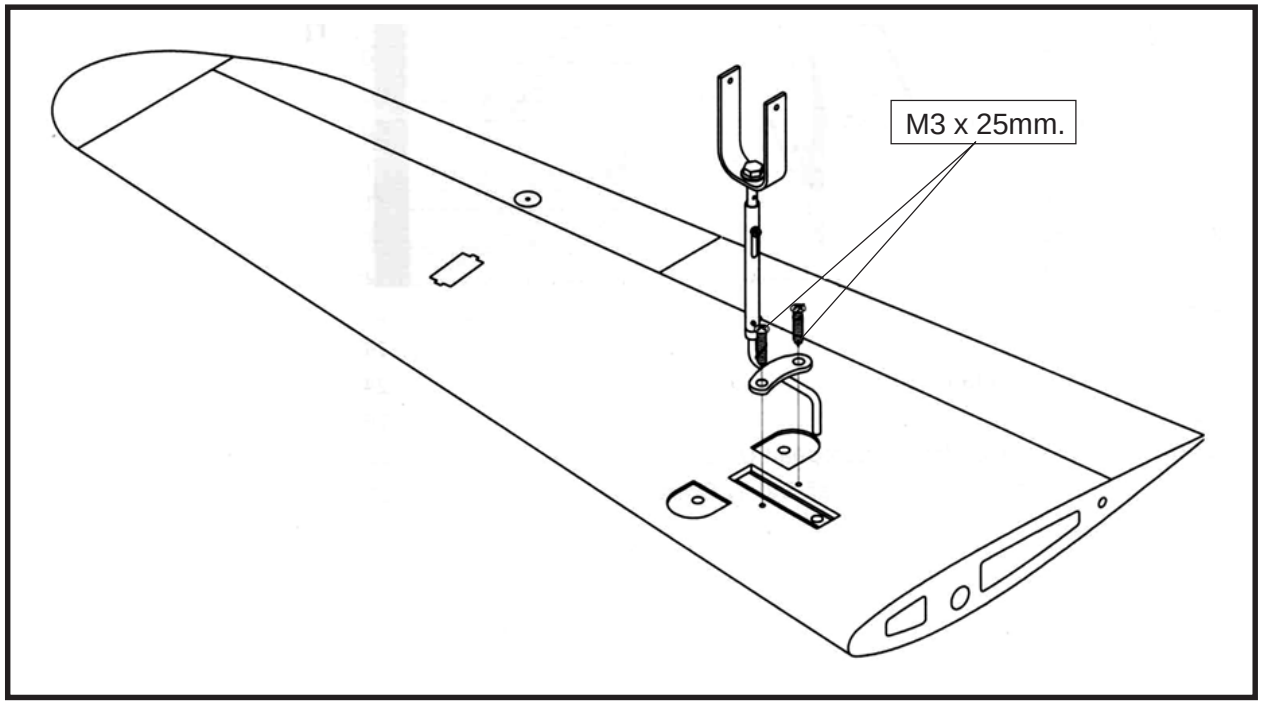


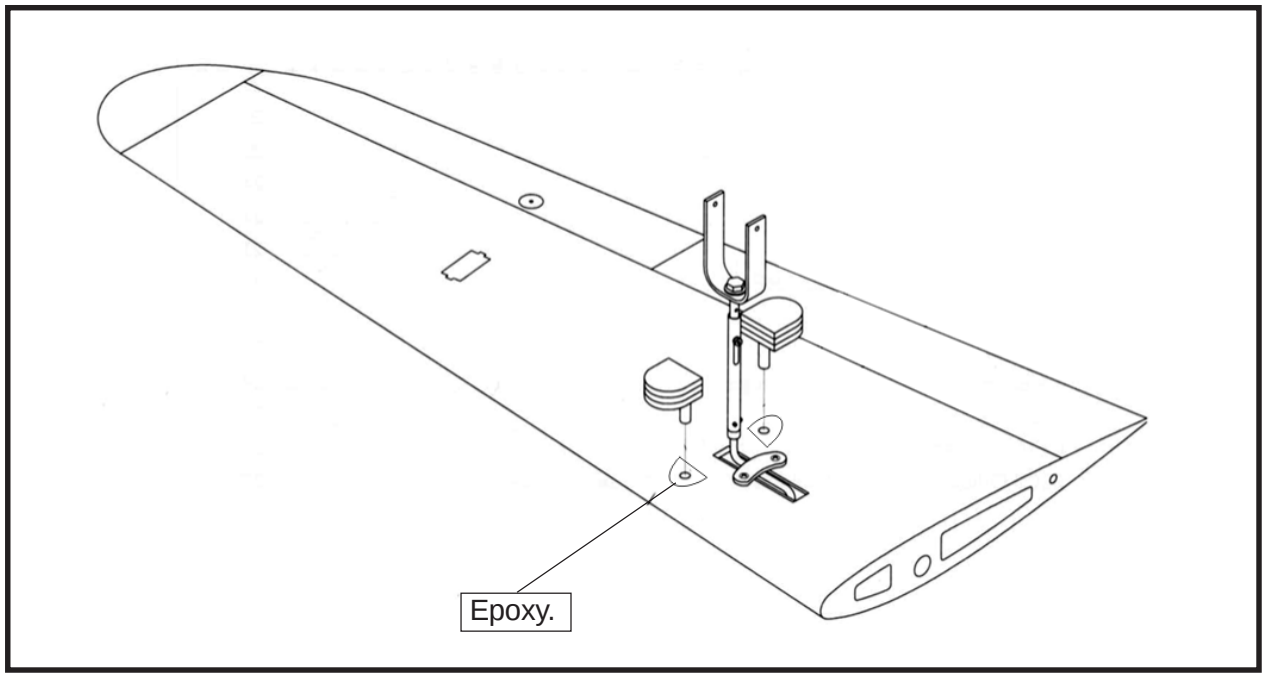
☐ 1) Using a modeling knife, remove the covering from over the two main gear mounting slots located in the bottom of the wing.

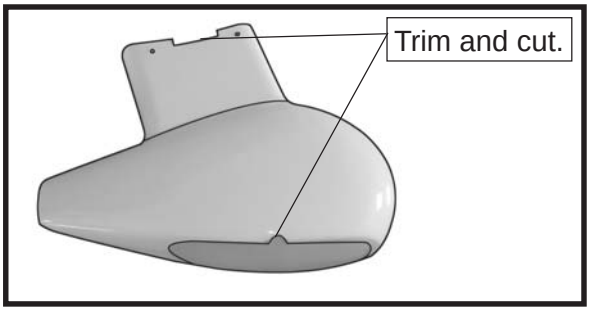
☐ 2) Insert the 90º bend of one main gear wire and support mounting block into the pre-drilled hole in one mounting slot

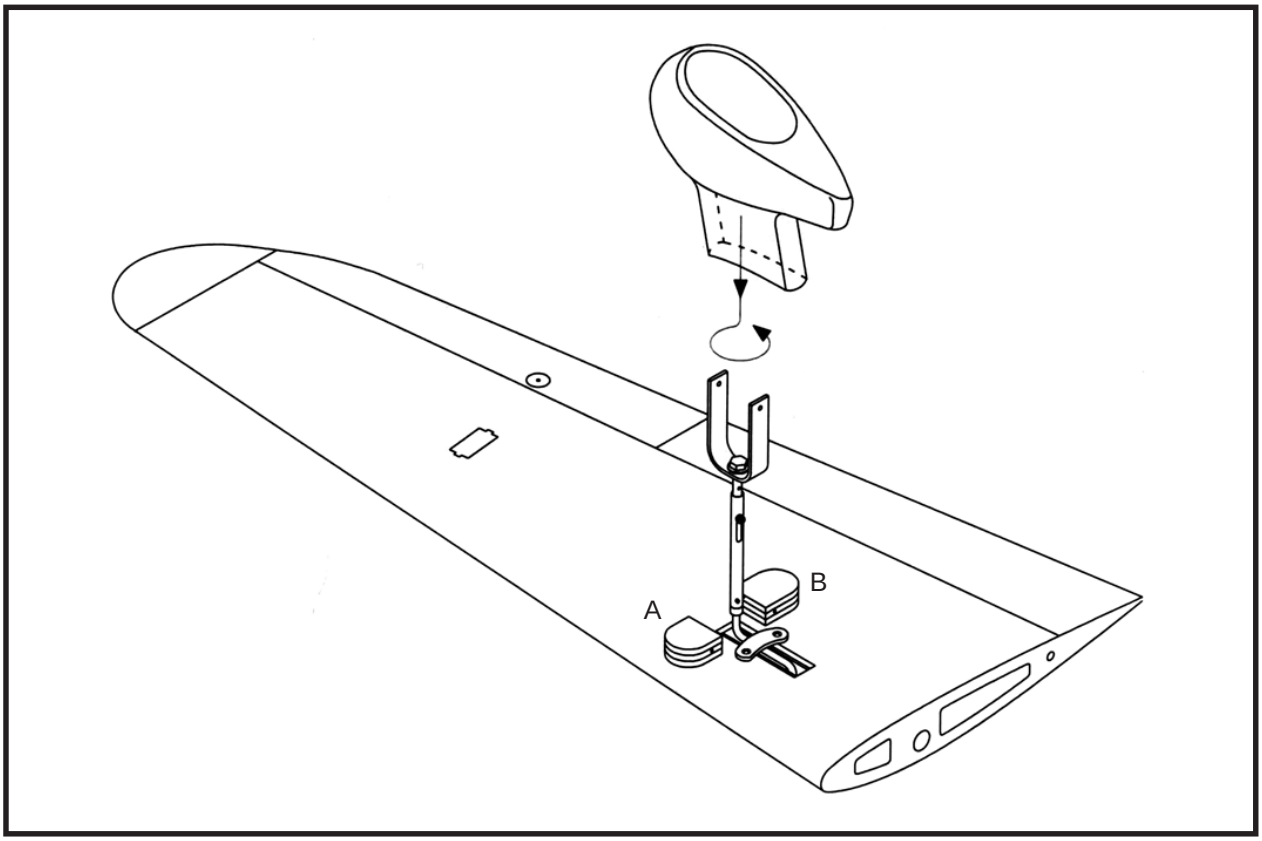


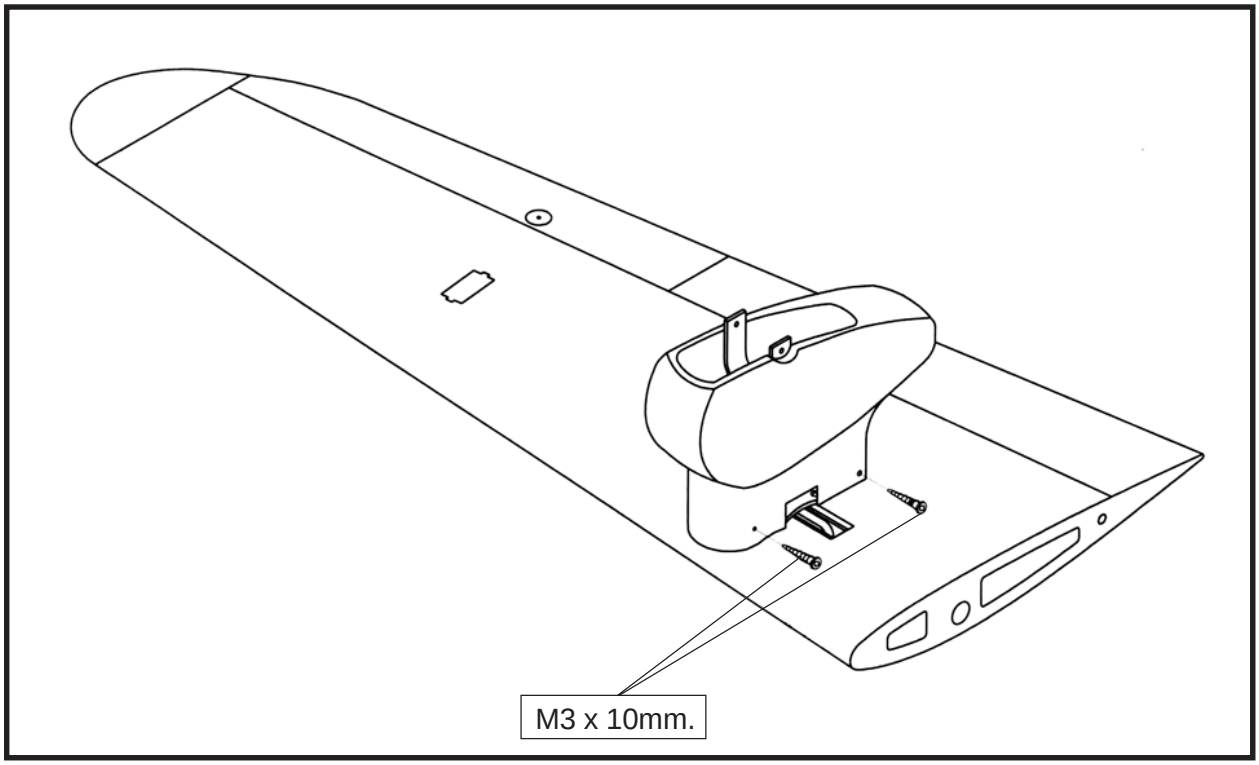


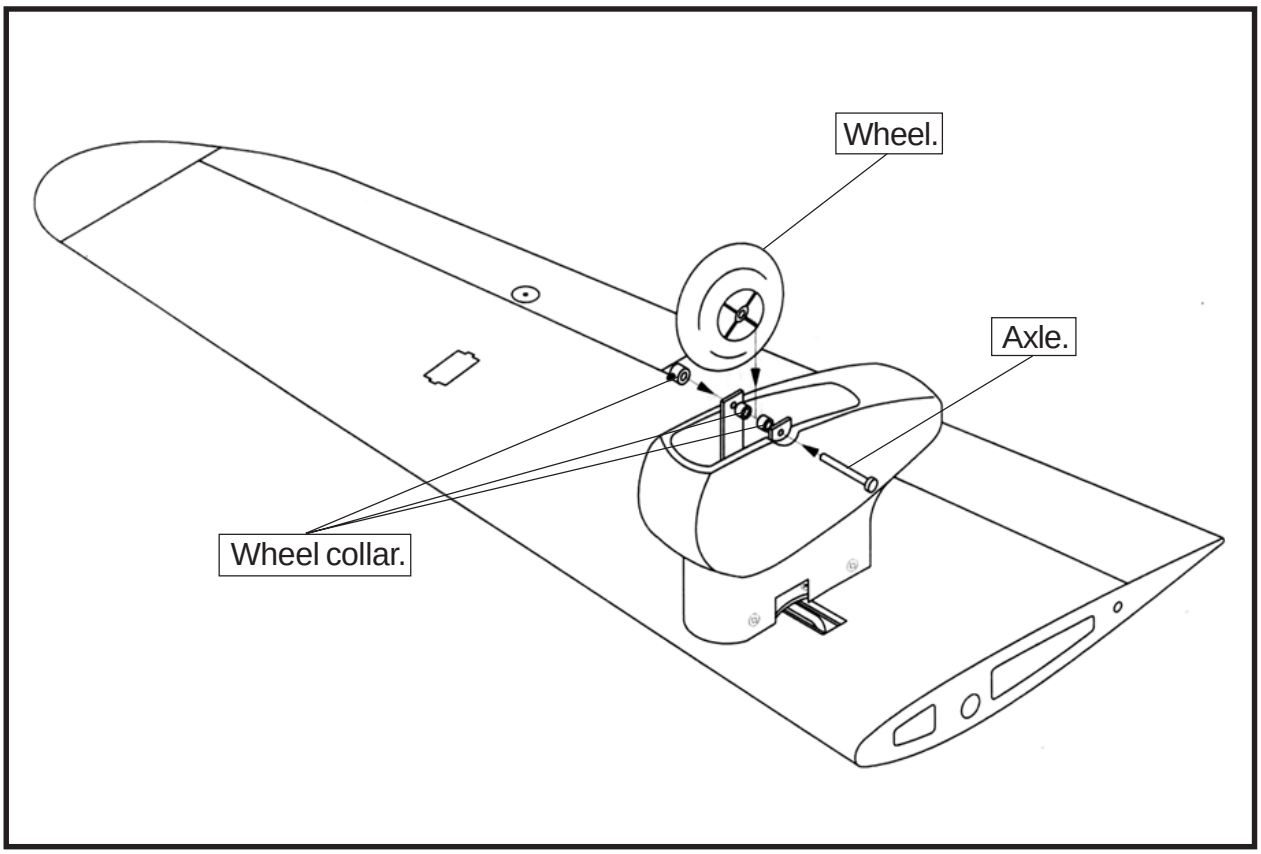


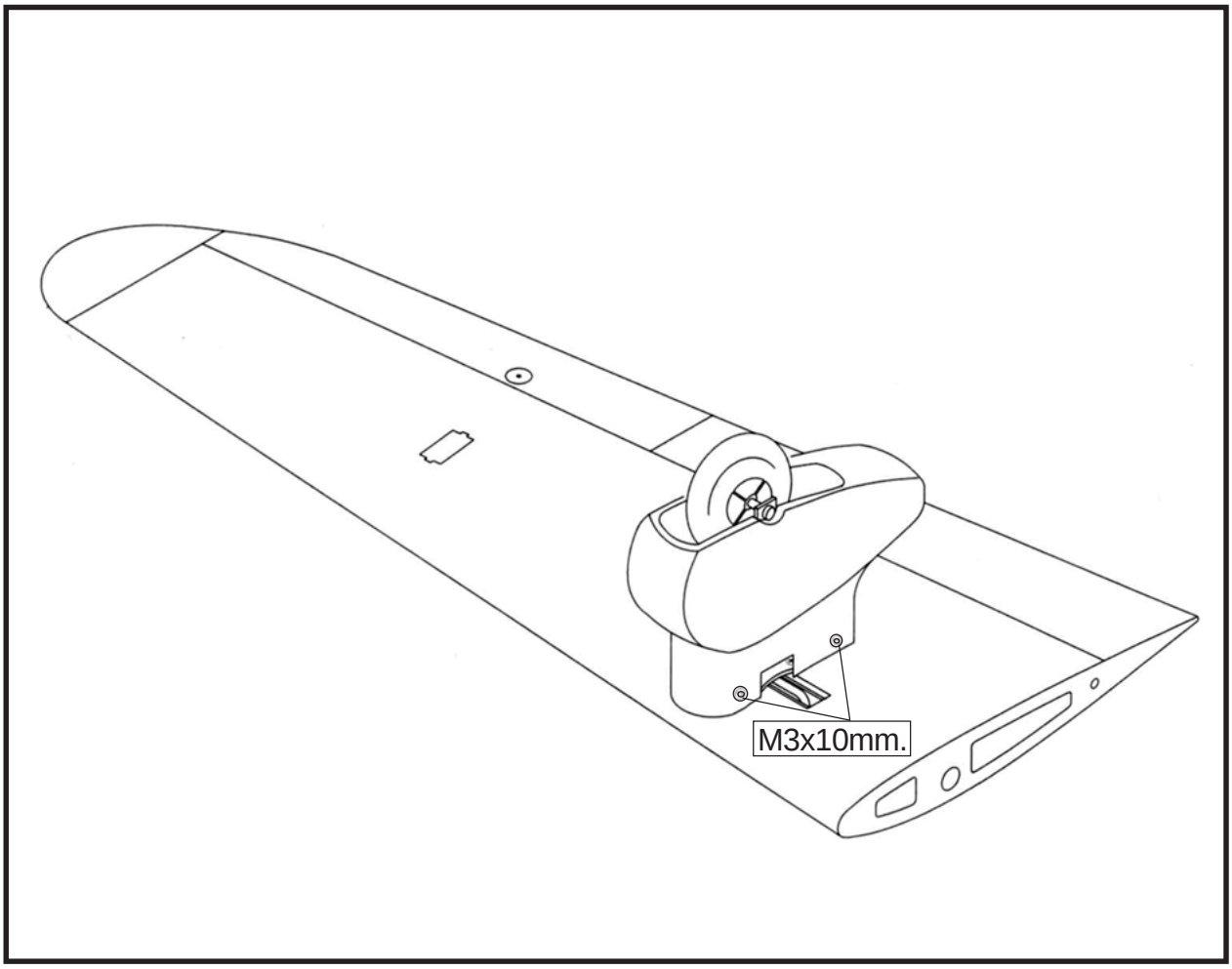



Trim and cut.


A
B


M3 x 10mm.


Wheel.
Axle.
Wheel collar.


M3x10mm.

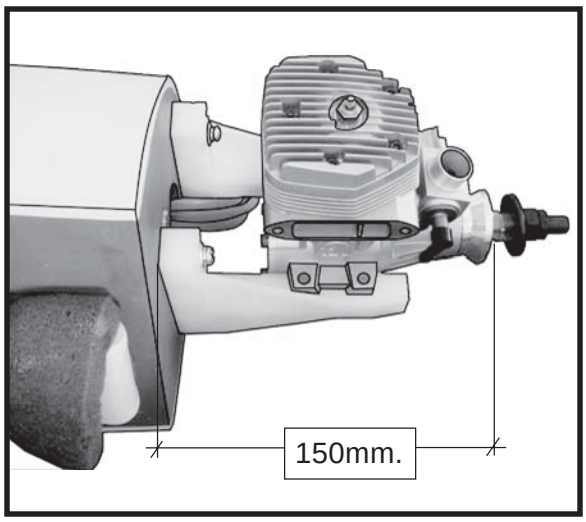
MOUNTING THE ENGINE.

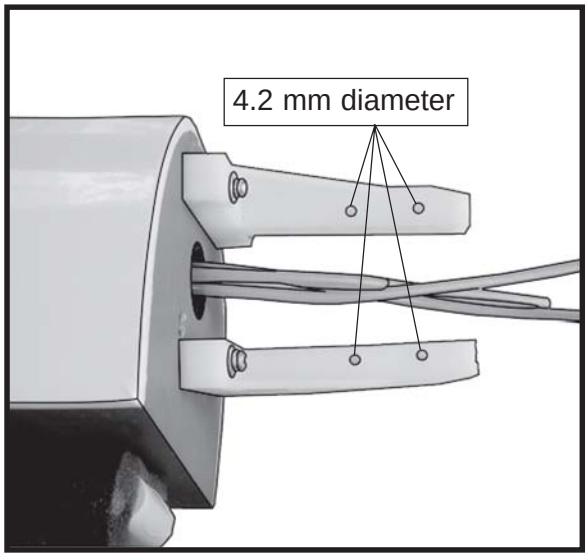
☐ 1) Install the pushrod housing through the predrilled hole in the firewall and into the servo compartment. The pushrod housing should protrude 1/4" out past the front of the firewall. Make a Z-Bend 1/4" from one end of the plain wire pushrod.

☐ 2) Place your engine onto the engine mount. Adjust the engine is centered of the edges of the engine case.

☐ 3) When you are satisfied with the alignment, mark the locations of the engine mounting.

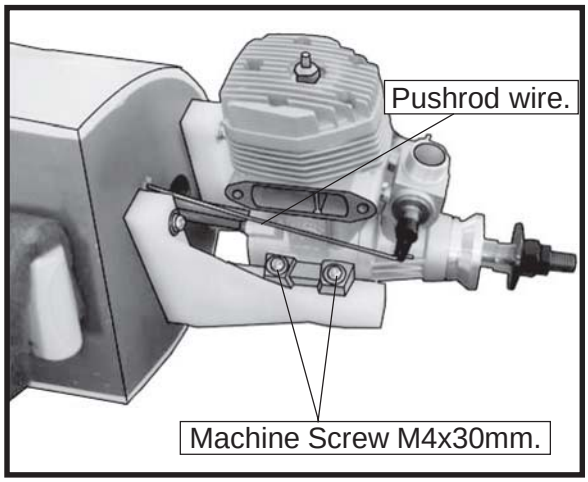
☐ 4) Remove the engine. Using an drill bit, drill the mounting holes through the engine mount at the four locations marked.

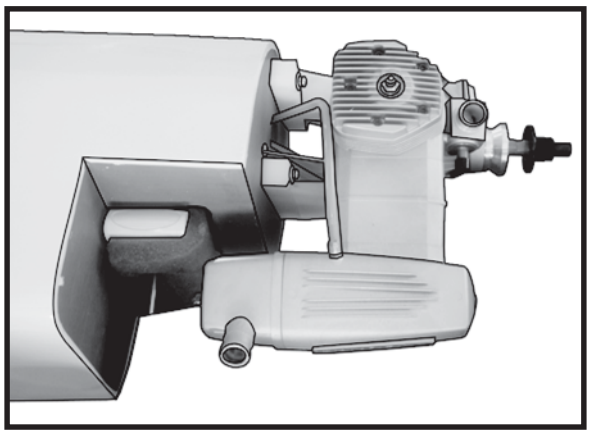




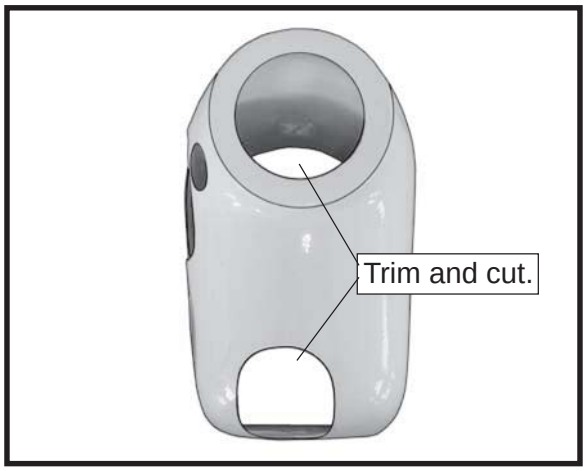
☐ 5) Bolt the engine to the engine mount using the four machine screws. Double check that all the screws are tight before proceeding.

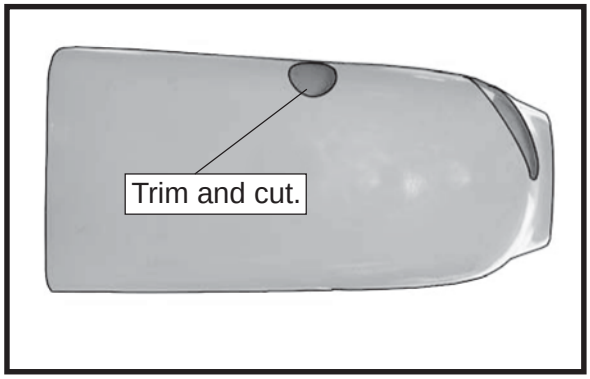
☐ 6) Attach the Z-Bend in the pushrod wire to the throttle arm on the carburetor.

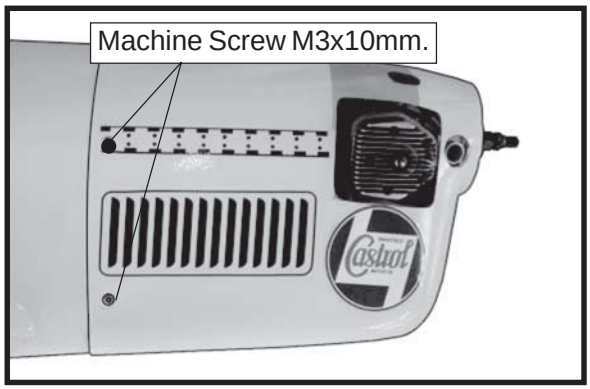


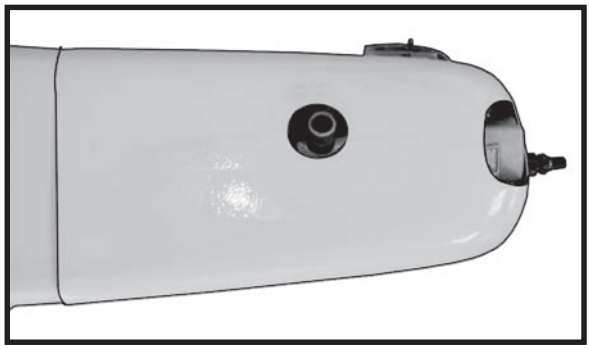


COWLING INSTALLATION.

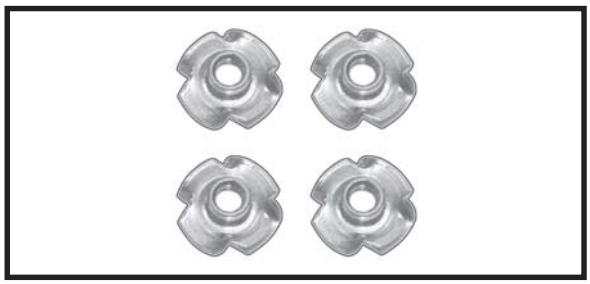


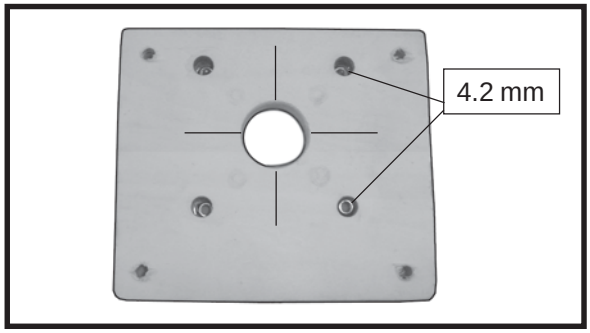


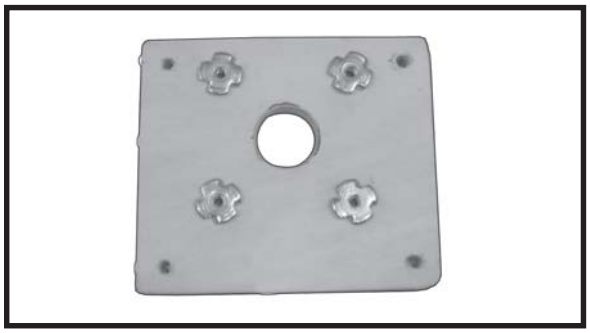


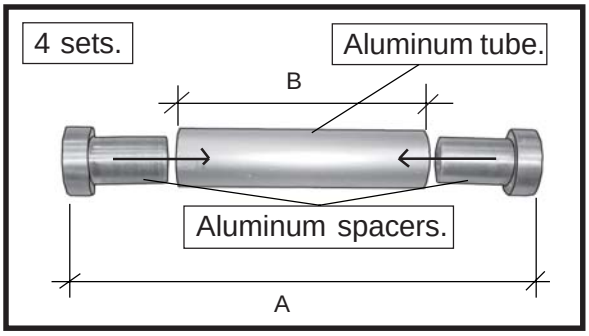


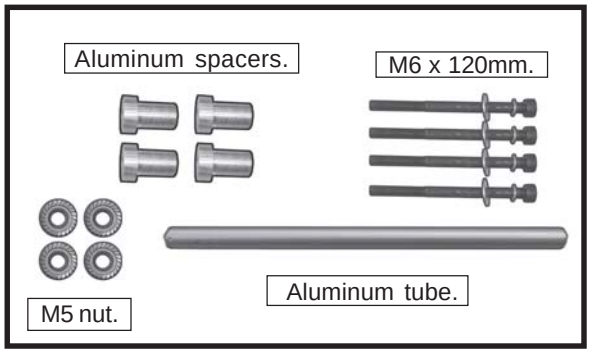
2. Electric Conversion (Ep Power) (OPTION).

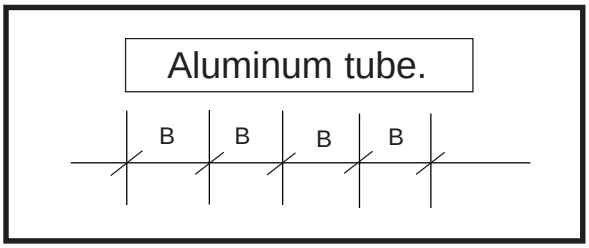


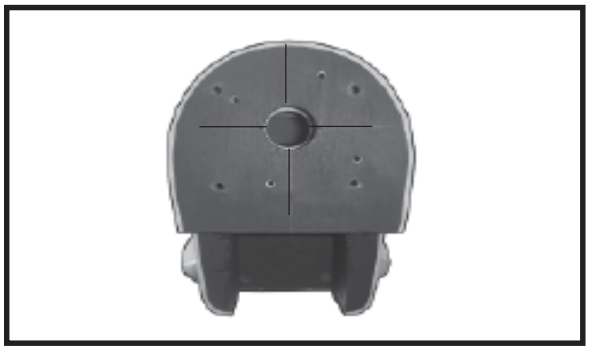


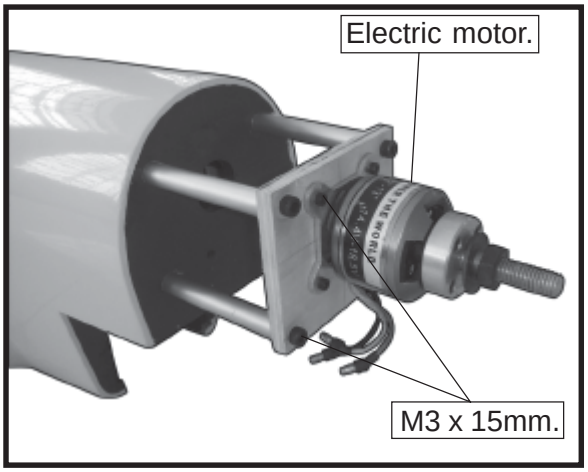


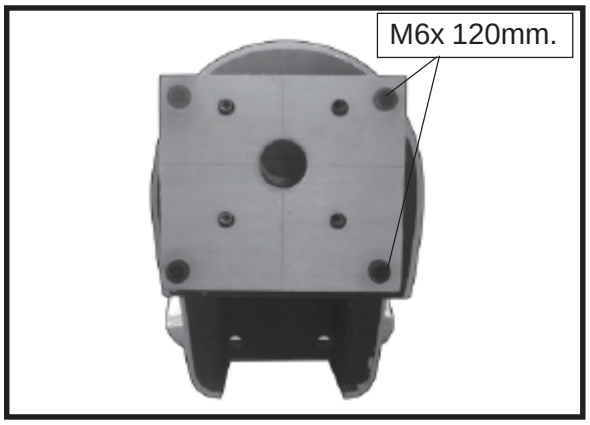

4 sets.
Aluminum tube.
B
Aluminum spacers.
A

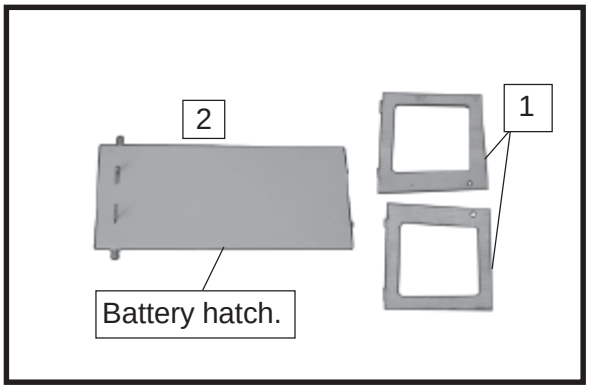

Aluminum spacers.
M6 x 120mm.
M5 nut.
Aluminum tube.

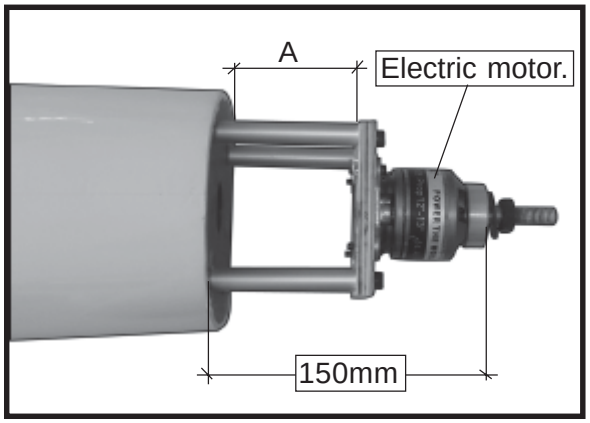

Aluminum tube.
B
B
B
B

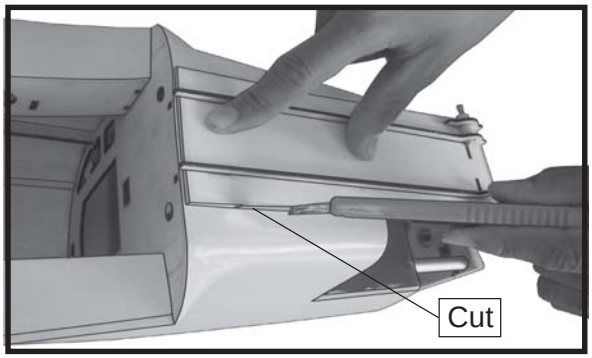


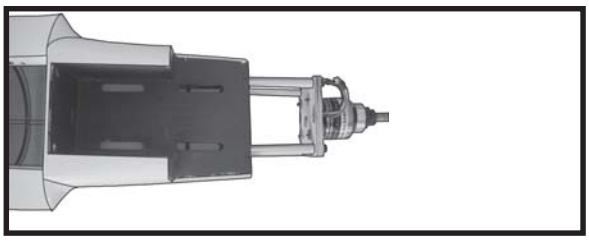

Electric motor.
M3 x 15mm.

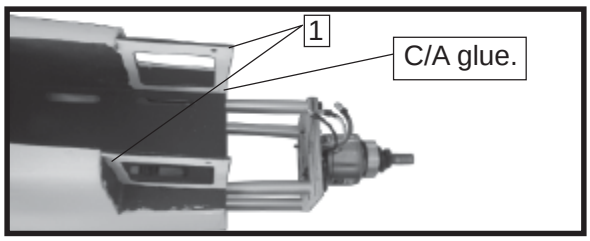

M6x 120mm.

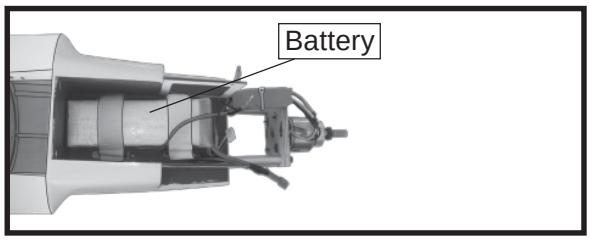

2
1
Battery hatch.

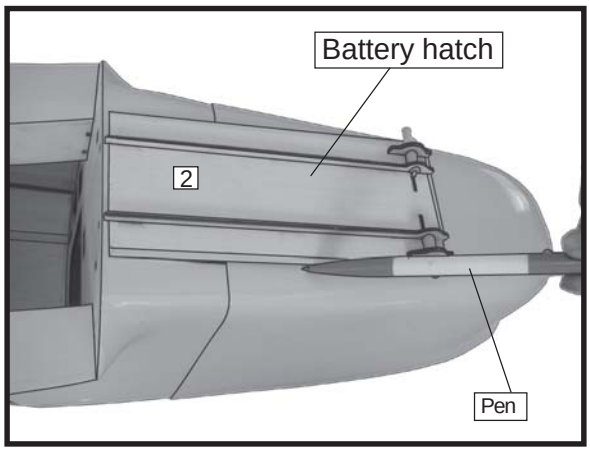

A
Electric motor.
150mm

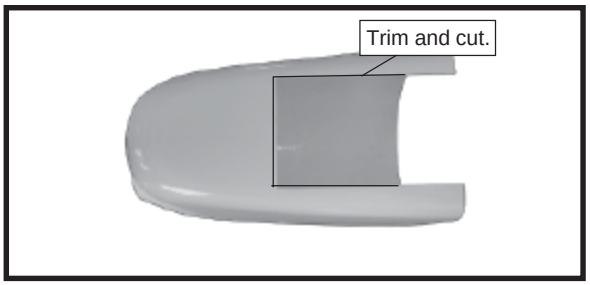

Cut

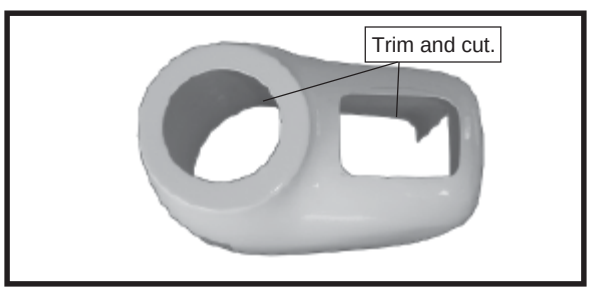


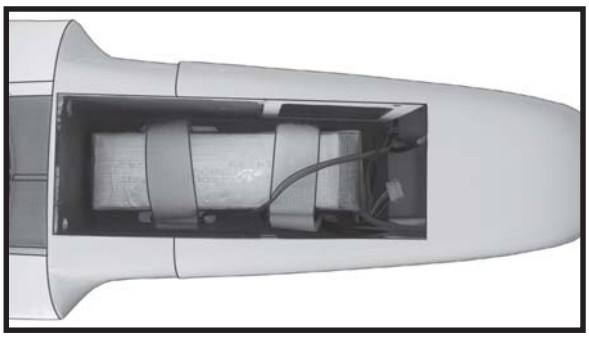


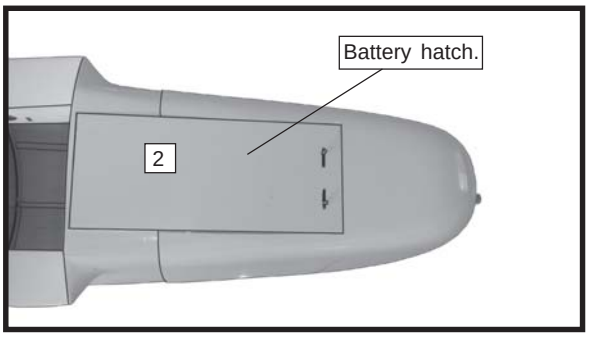




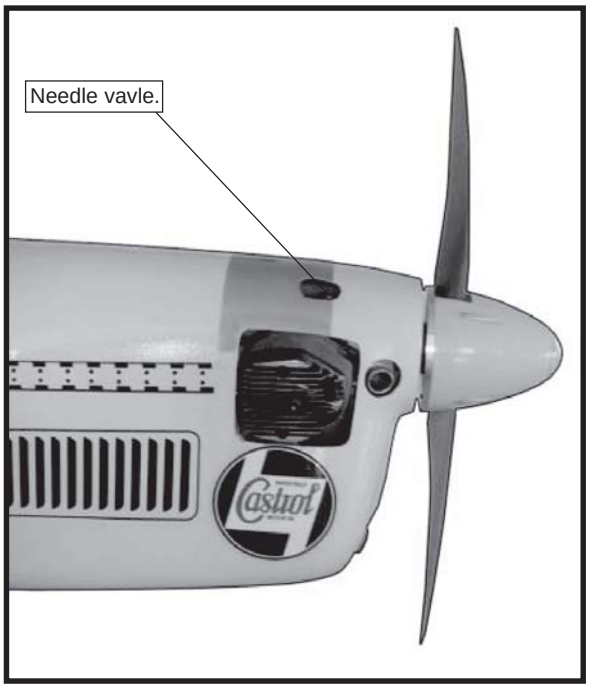


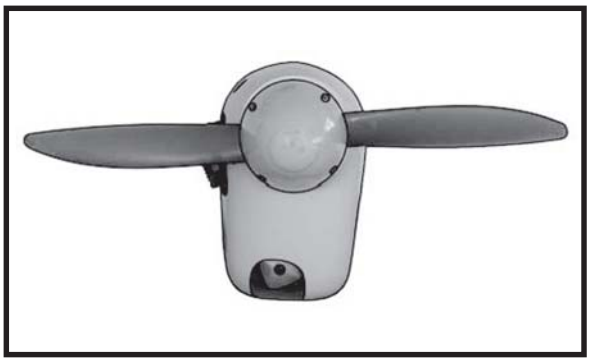




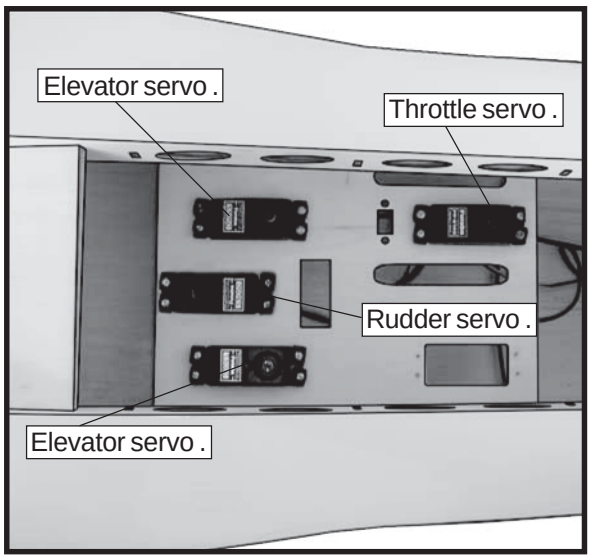


SPINNER INSTALLATION.



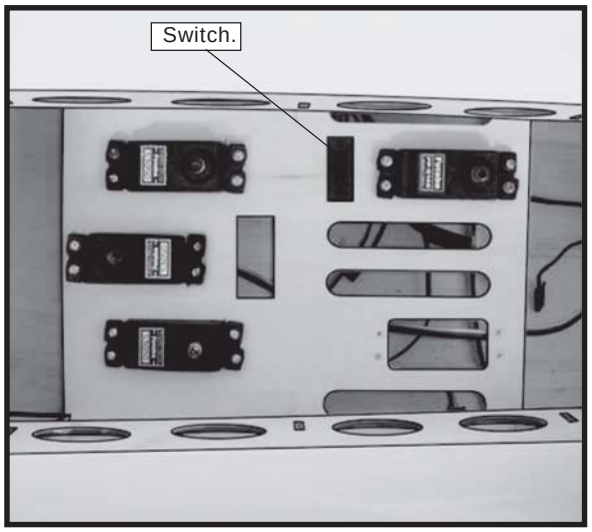


INSTALLING THE FUSELAGE SERVO.



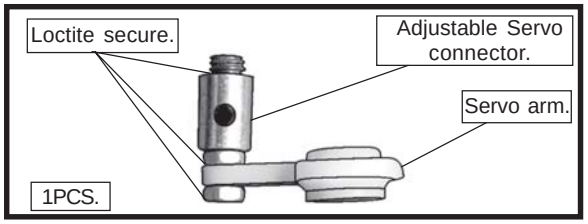
INSTALLING THE SWITCH.

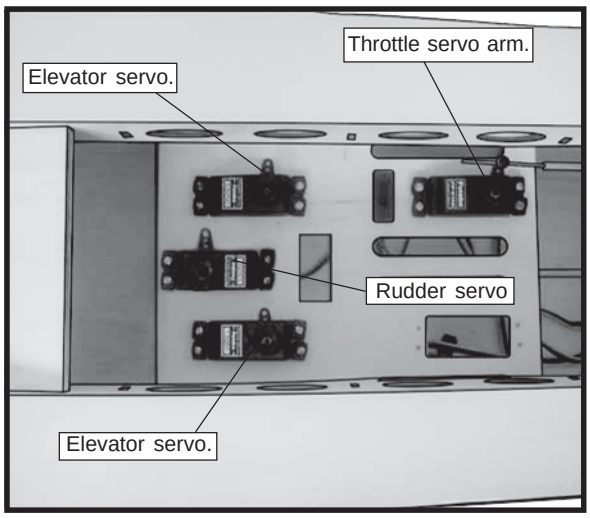
Install the switch into the precut hole in the side of fuselage.



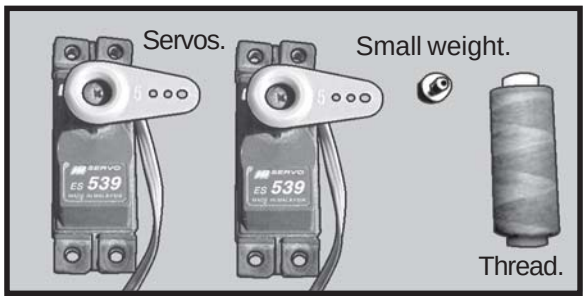
THROTTLE SERVO ARM INSTALLATION.

Install adjustable servo connector in the servo arm.

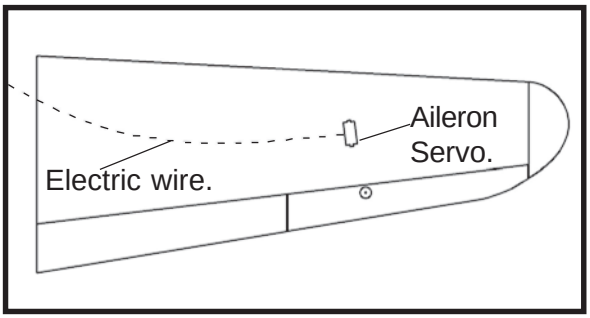




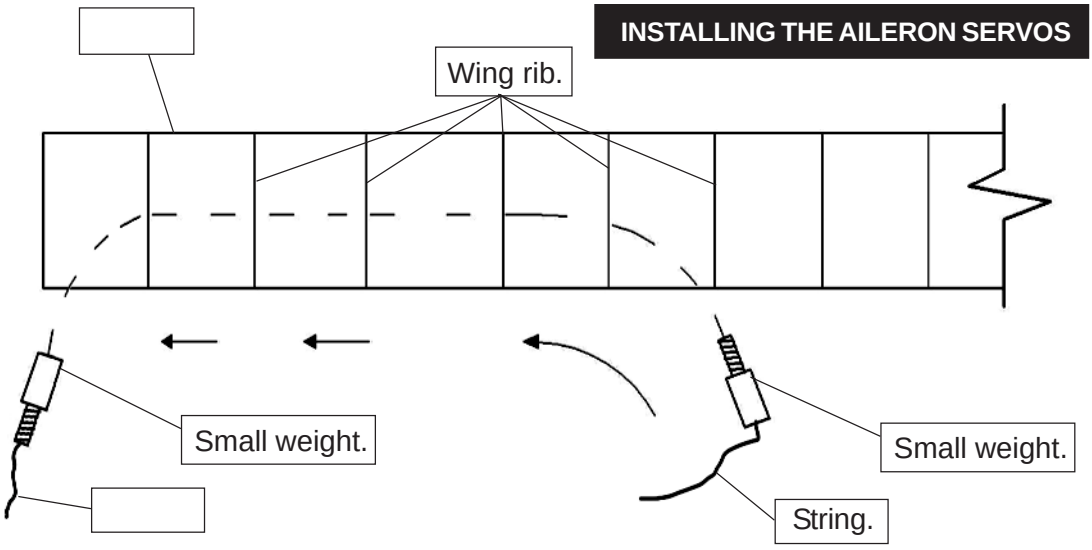
INSTALLING THE AILERON SERVOS.



Installing the aileron servo in place using the same techniques used to flap servo.

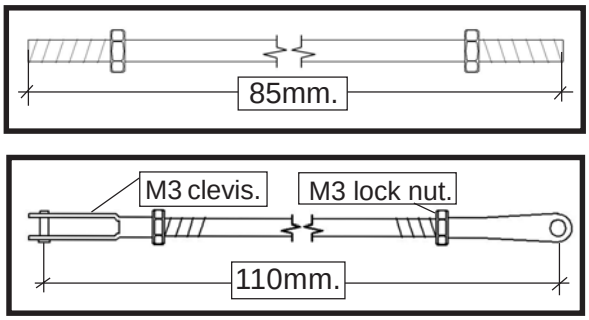


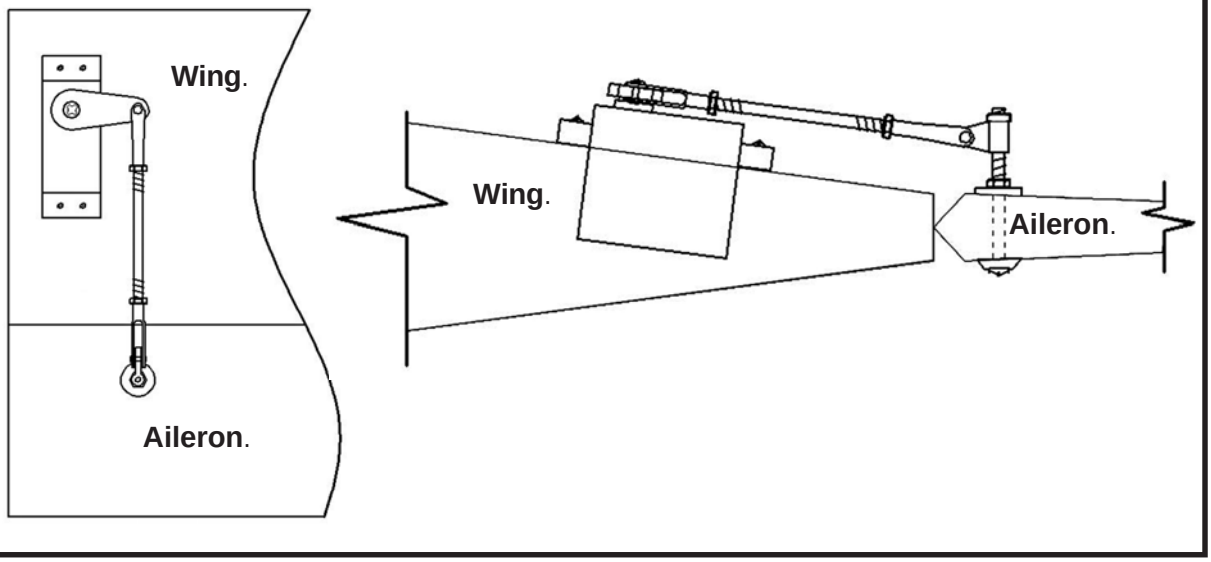
INSTALLING THE AILERON SERVOS

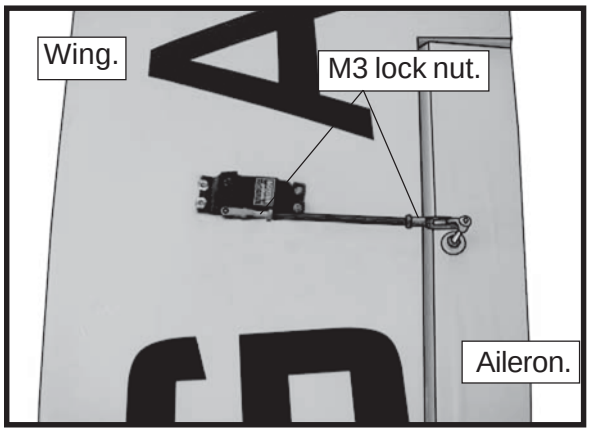


Attach the string to the servo lead and carefully thread it though the wing.

AILERON PUSHROD HORN INSTALLATION

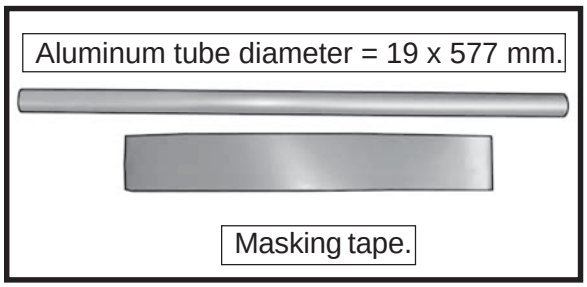


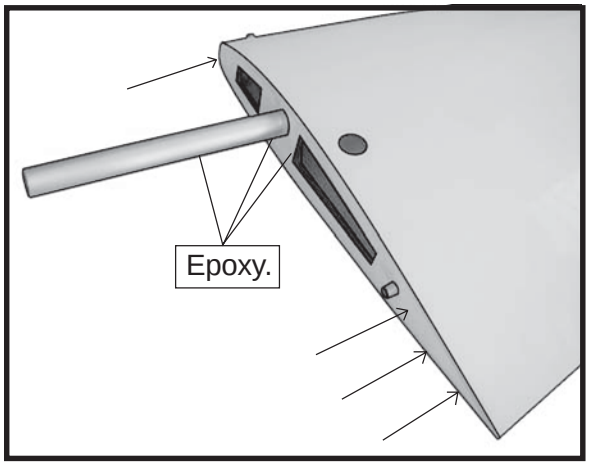


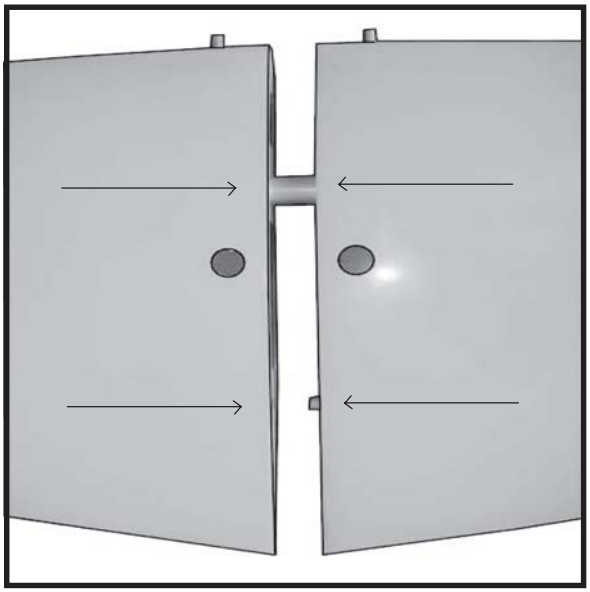


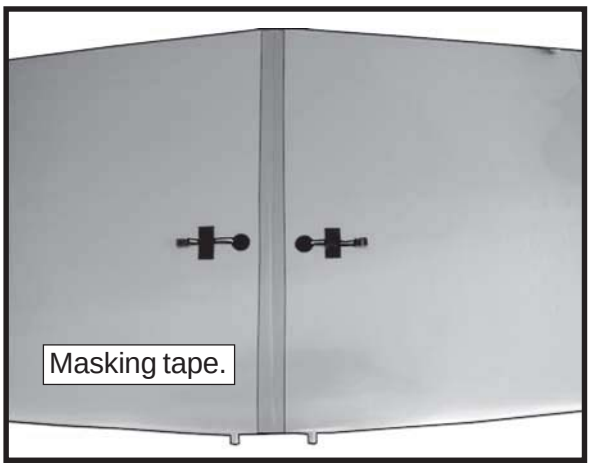
Repeat the procedure for the other wing.

WING ASSEMBLY.



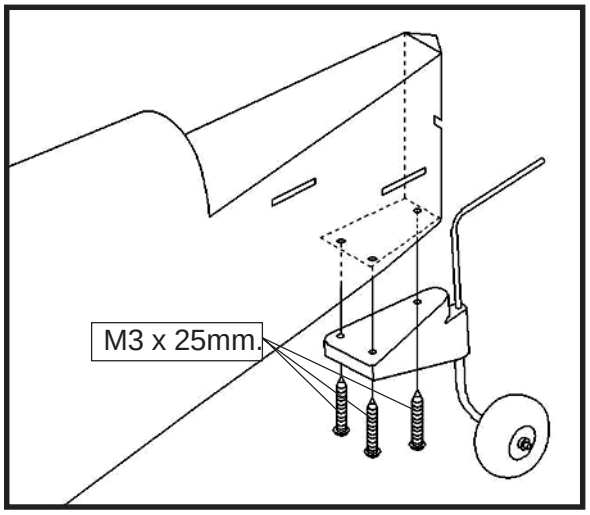


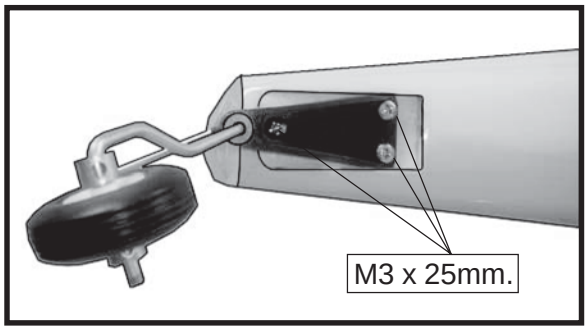




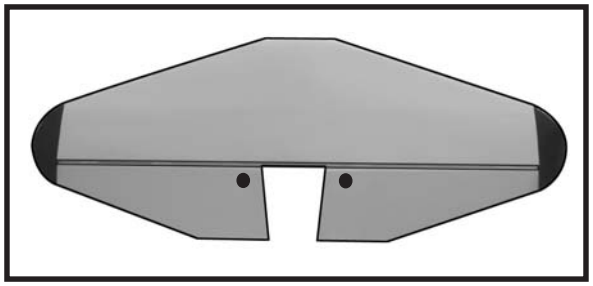
MOUNTING THE TAIL WHEEL

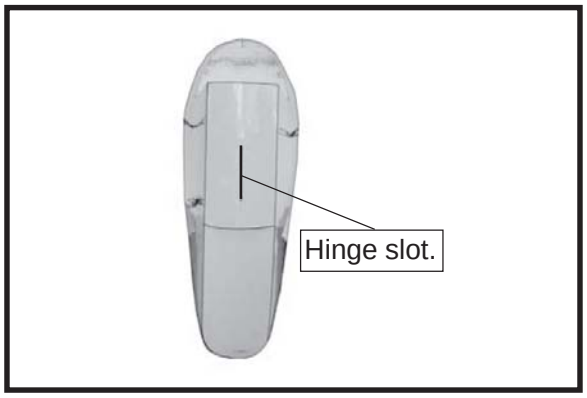
See pictures below.

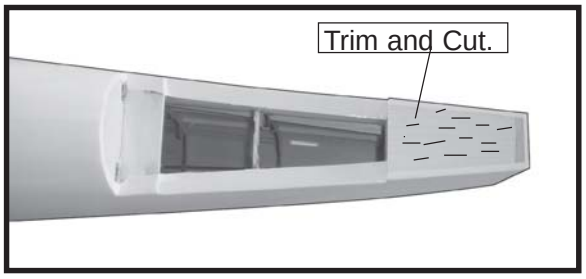


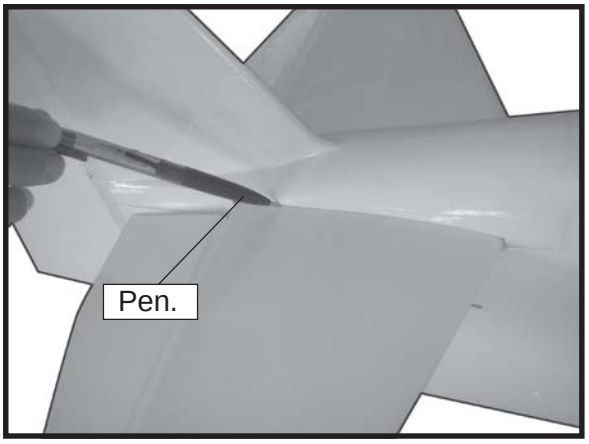


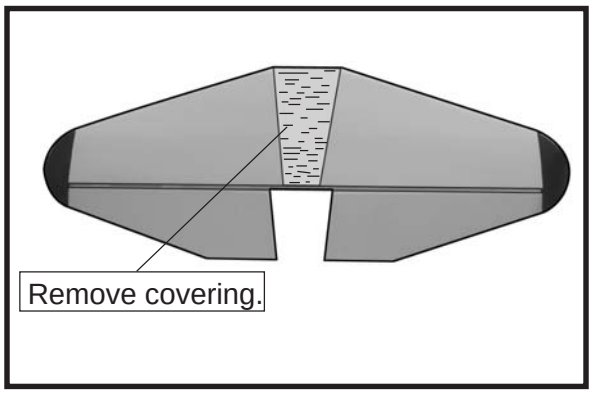
INSTALLING HORIZONTAL FIN.

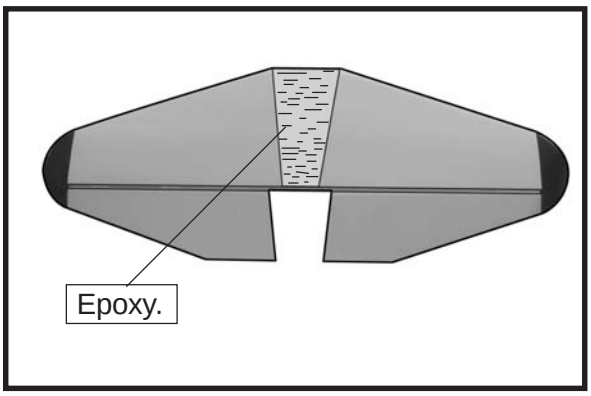


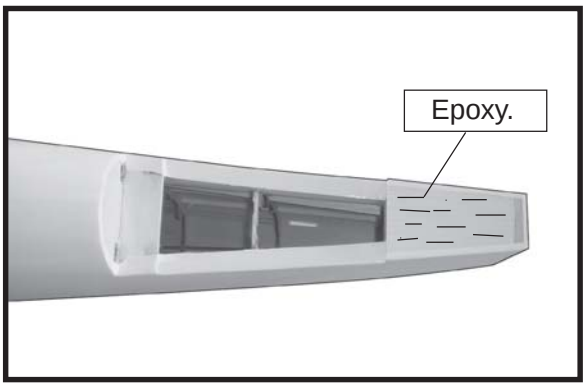


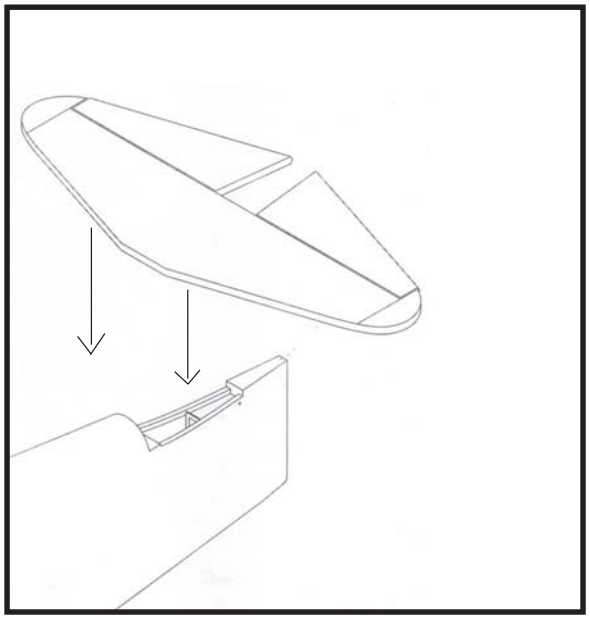


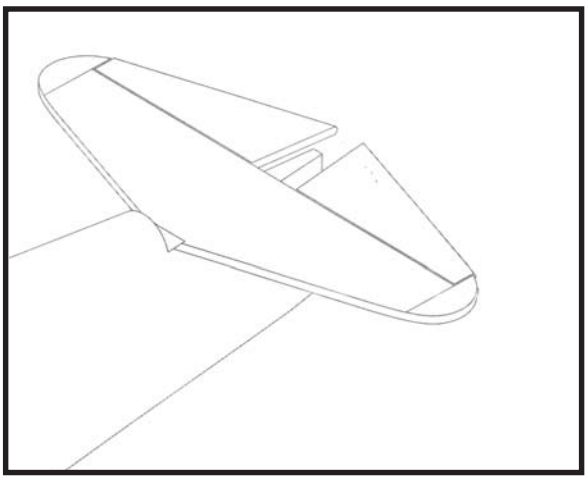






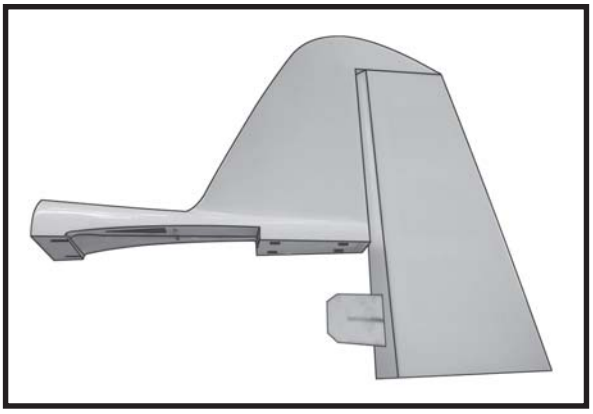


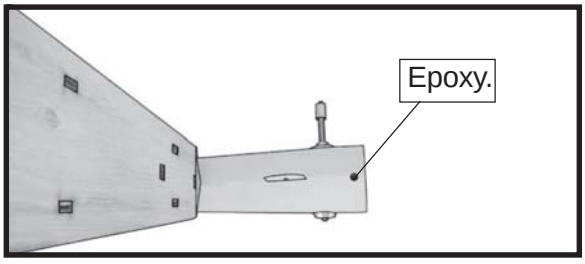


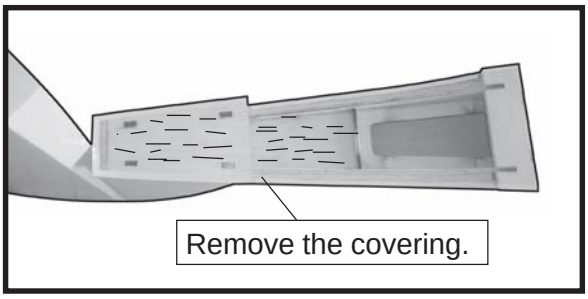


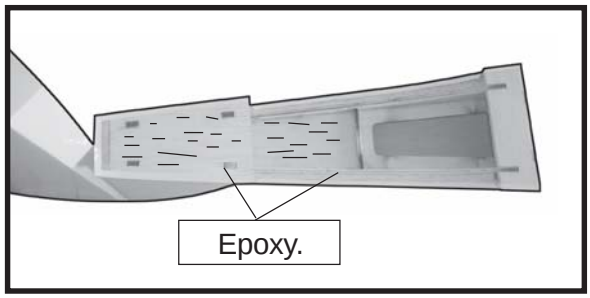
INSTALLING VERITICAL FIN.

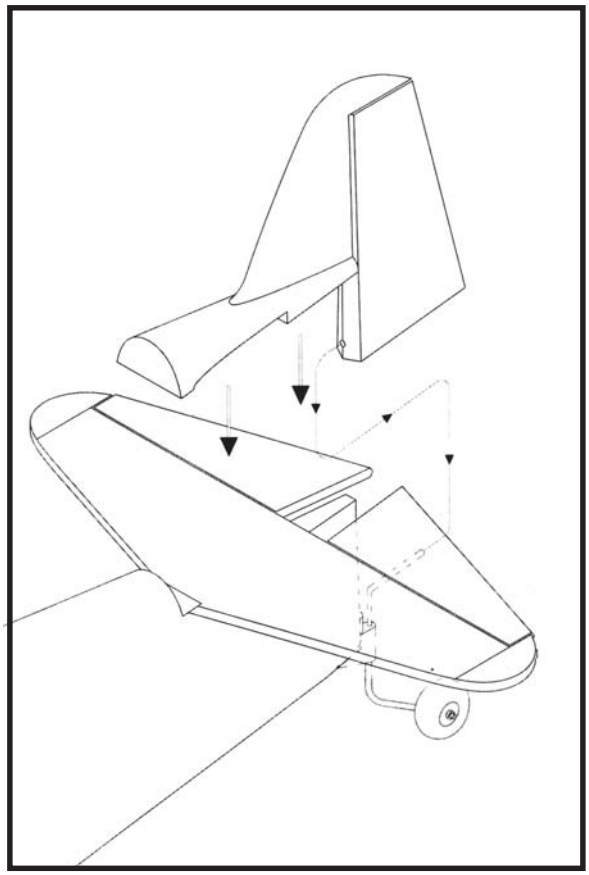
☐ 1) Remove the covering as picture shown below.

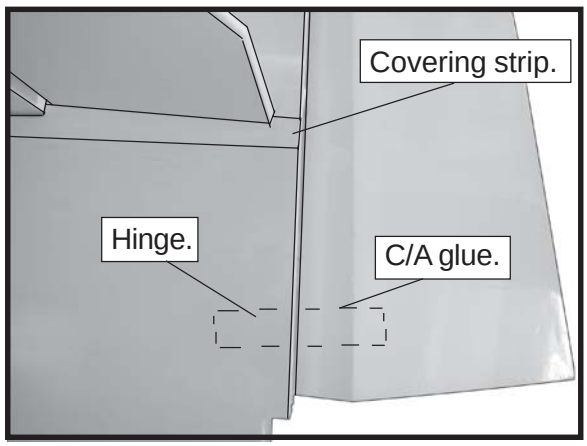


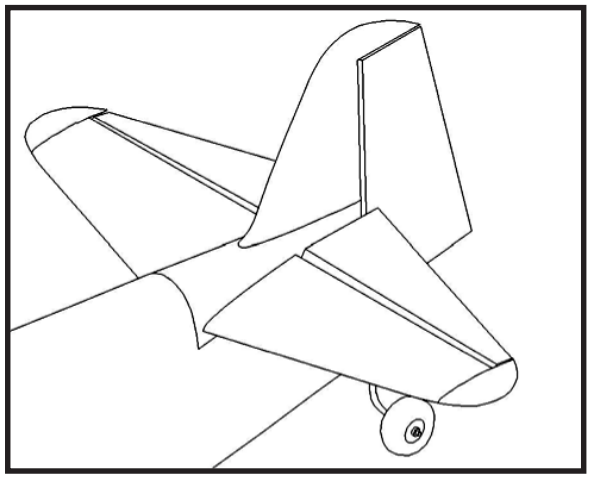


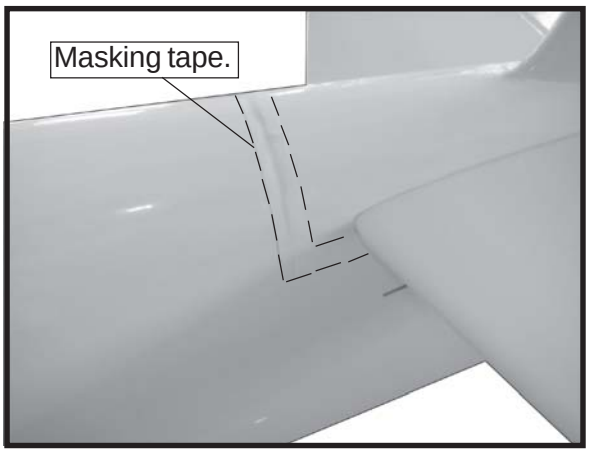


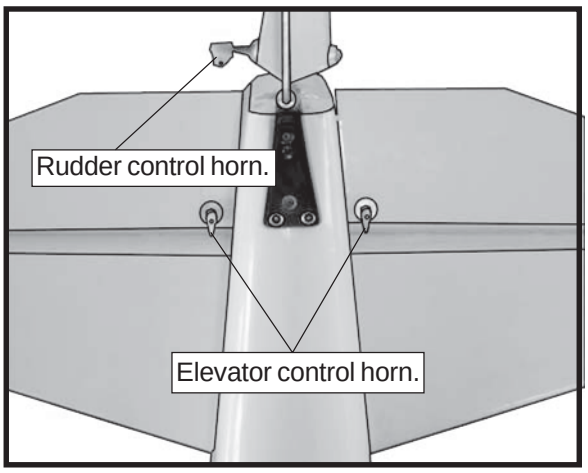






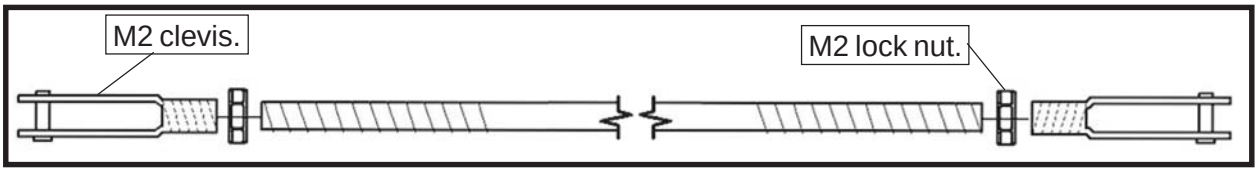


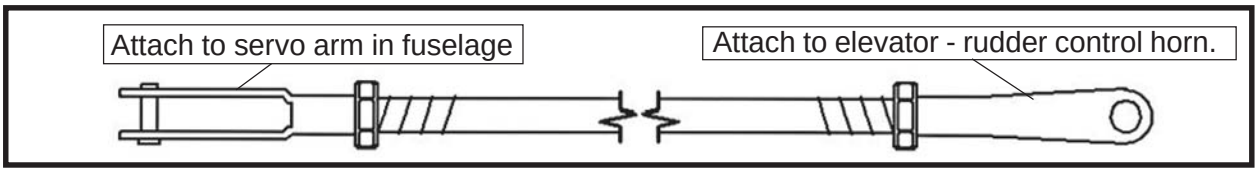


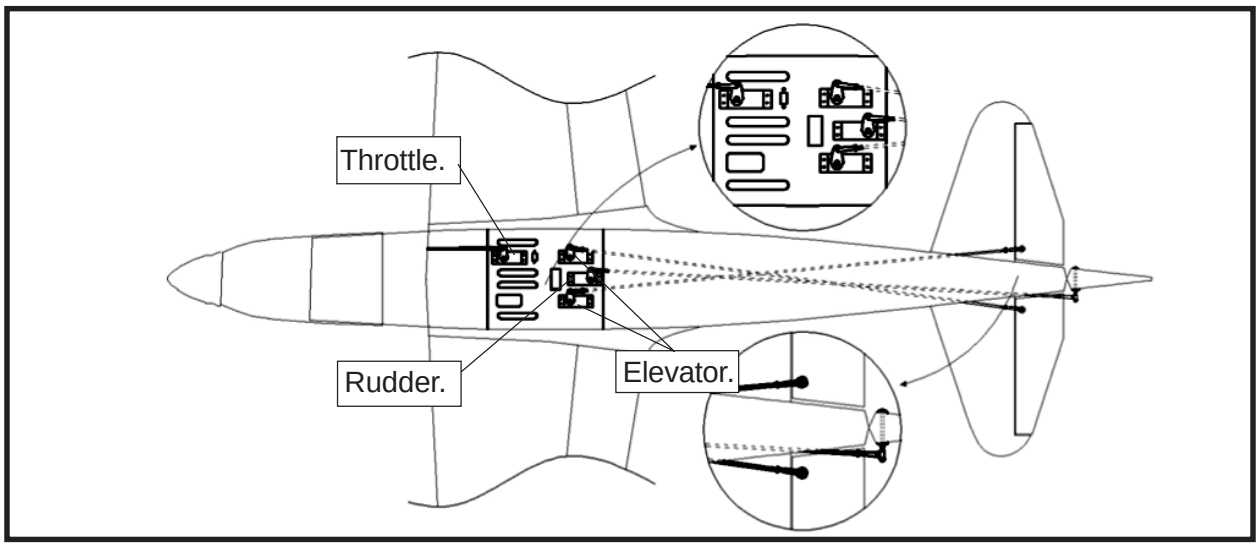


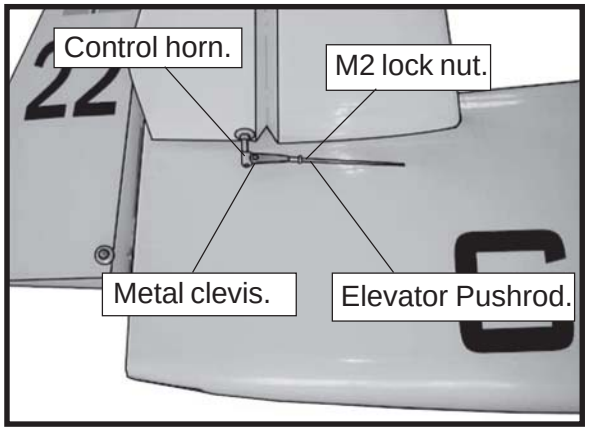
ELEVATOR - RUDDER PUSHROD HORN INSTALLATION.

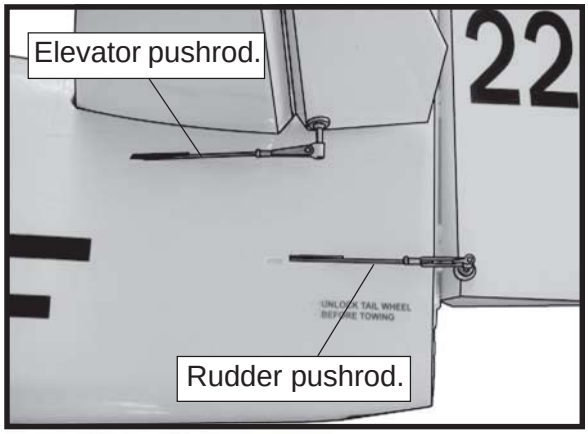
☐ 1) Elevator and rudder pushrods assembly follow pictures below.

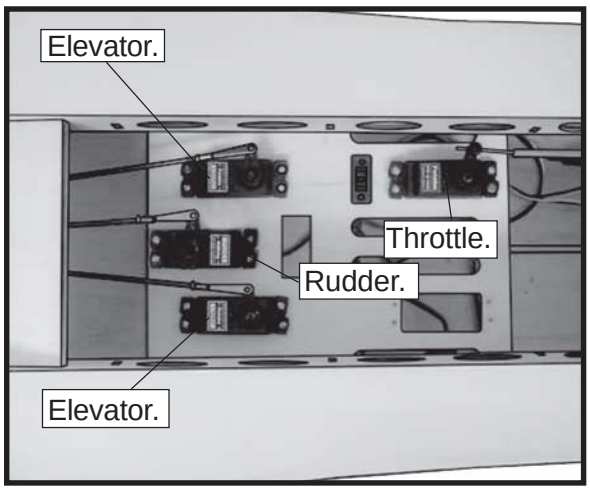


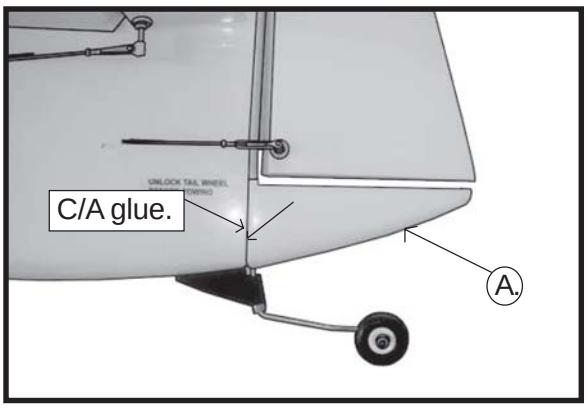




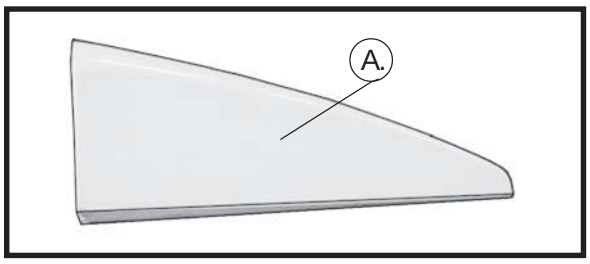


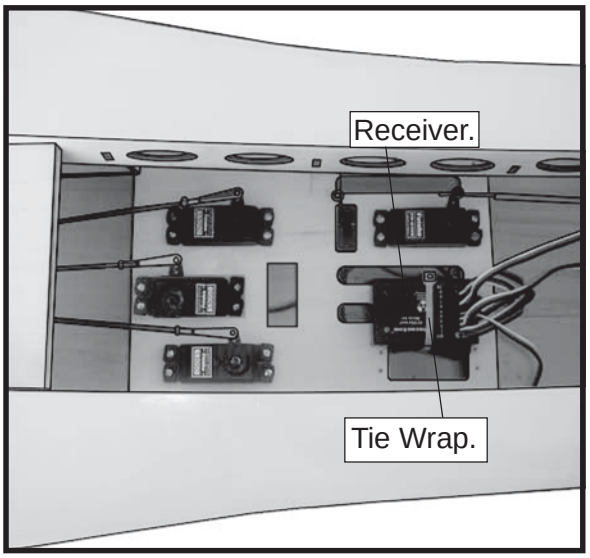


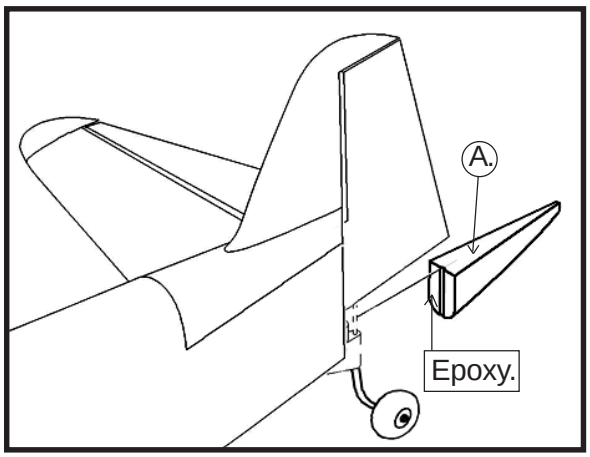


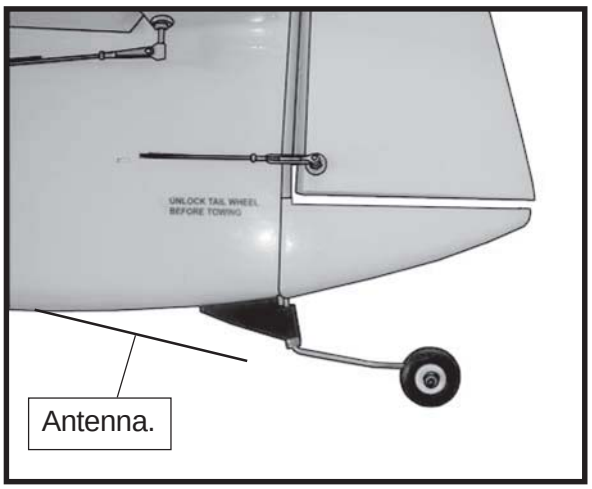


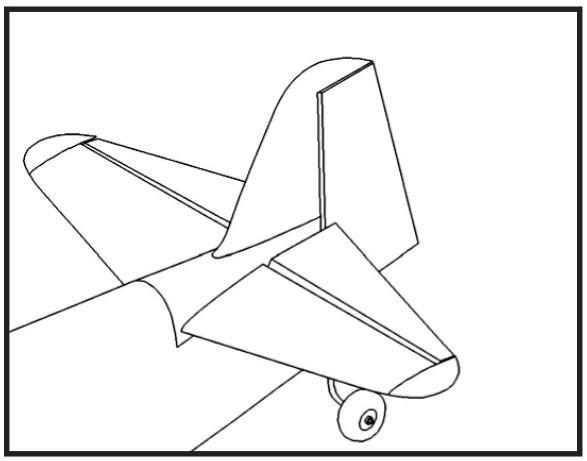
INSTALLING THE RECEIVER.



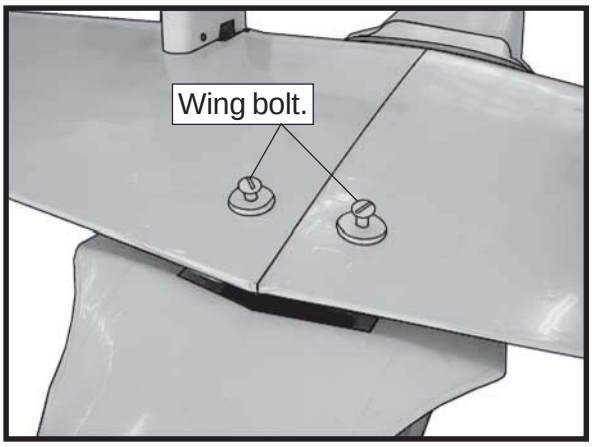








ATTACHMENT WING - FUSELAGE.



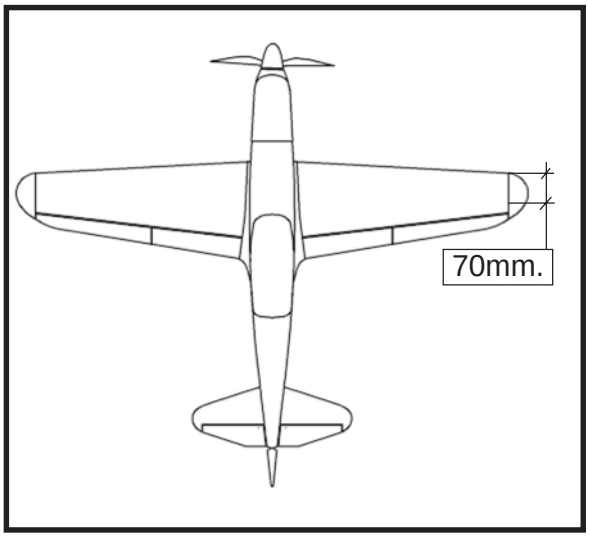
BALANCING.

☐1) It is critical that your airplane be balanced correctly. Improper balance will cause your plane to lose control and crash. The center of gravity is locate ***70mm*** back from the leading edge of the wing, measured at wing tip.

☐2) If the nose of the plane falls, the plane is nose heavy. To correct this first move the battery pack further back in the fuselage. If this is not possible or does not correct it, stick small amounts of lead weight on the fuselage sides under the horizontal stabilizer. If the tail of the plane falls, the plane is tail heavy.

To correct this, move the battery and receiver forward orif this is not possible, stick weight onto the firewall.

When balanced correctly, the airplane should sit level or slightly nose down when you lift it up with your fingers.



CONTROL THROWS.

☐ 1) We highly recommend setting up the **PERCIVAL MEWGULL** using the control throws listed at right. We have listed control throws for both Low Rate (initial test flying/sport flying) (aerobatic flying).

☐ 2) Turn on the radio system, and with the trim tabs on the transmitter in neutral, center the control surfaces by making adjustments to the clevises or adjustable servo connectors. The servo arms should be centered also.

☐ 3) When the elevator, rudder and aileron control surfaces are centered, use a ruler and check the amount of the control throw in each surface. **The control throws should be measured at the widest point of each surface!**

INITIAL FLYING/SPORT FLYING

Ailerons : 10mm" up 10mm" down.
Elevator : 10mm" up 10mm" down.
Rudder : 15mm" right 15mm" left.

AEROBATIC FLYING

Ailerons : 15mm" up 15mm" down.
Elevator : 15mm" up 15mm" down.

Do not use the aerobatic settings for

☐ 4) By moving the position of the adjustable control horn out from the control surface, you will decrease the amount of throw of that control surface. Moving the adjustable control horn toward the control surface will increase the amount of throw.

FLIGHT PREPARATION.

☐ A) Check the operation and direction of the elevator, rudder, ailerons and throttle.

☐ B) Plug in your radio system per the manufacturer's instructions and turn everything on.

☐ C) Check the elevator first. Pull back on the elevator stick. The elevator halves should move up. If it they do not, flip the servo reversing switch on your transmitter to change the direction.

☐ D) Check the rudder. Looking from behind the airplane, move the rudder stick to the right. The rudder should move to the right. If it does not, flip the servo reversing switch on your transmitter to change the direction.

☐ E) Check the throttle. Moving the throttle stick forward should open the carburetor barrel. If it does not, flip the servo reversing switch on your transmitter to change the direction.

☐ F) From behind the airplane, look at the aileron on the right wing half. Move the aileron stick to the right. The right aileron should move up and the other aileron should move down. If it does not, flip the servo reversing switch on your transmitter to change the direction.

PREFLIGHT CHECK.

☐1) Completely charge your transmitter and receiver batteries before your first day of flying.

☐2) Check every bolt and every glue joint in the **PERCIVAL MEWGULL** to ensure that everything is tight and well bonded.

☐3) Double check the balance of the airplane. Do this with the fuel tank empty.

☐4) Check the control surfaces. All should move in the correct direction and not bind in any way.

☐5) If your radio transmitter is equipped with dual rate switches double check that they are on the low rate setting for your first few flights.

☐6) Check to ensure the control surfaces are moving the proper amount for both low and high rate settings.

☐7) Check the receiver antenna. It should be fully extended and not coiled up inside the fuselage.

☐8) Properly balance the propeller. An out of balance propeller will cause excessive vibration which could lead to engine and/or airframe failure.

We wish you many safe and enjoyable flights with your **PERCIVAL MEWGULL.**

FOR USA MARKET ONLY

Safety,Precautions and Warnings

As the user of this product, you are solely responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.
Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.
This model is controlled by a radio signal that is subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is necessary to always keep a safe distance in all directions around your model, as this margin will help to avoid
collisions or injury.

- Always operate your model in an open area away from cars, traffic or people.
- Avoid operating your model in the street where injury or damage can occur.
- Never operate the model out into the street or populated areas for any reason.
- Never operate your model with low transmitter batteries.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.

Warranty Period:

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the “Product”) will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Limited Warranty

(a) This warranty is limited to the original Purchaser (“Purchaser”) and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE
REQUIREMENTS OF THE PURCHASER’S INTENDED USE.

(c) Purchaser Remedy- Horizon’s sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser’s exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part

of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits:
HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.
Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

Safety Precautions:
This is a sophisticated hobby Product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the Product or other property. This Product is not intended for use by children without direct adult supervision. The Product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs:
Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a service technician.

Inspection or Repairs
If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as **Horizon is not responsible for merchandise until it arrives and is accepted at our facility.** A Service Repair Request is available at www.horizonhobby.com on the “Support” tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

Warranty Inspection and Repairs
To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Non-Warranty Repairs
Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly**.** Please note: non-warranty repair is only available on electronics and model engines.

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822

All other Products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822

Please call 877-504-0233 with any questions or concerns regarding this product or warranty.